

THE CHILDREN'S NEWSPAPER

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

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EDITED BY ARTHUR MEE

Three-halfpence—Every Friday

THE 4000-MILE CRACK ACROSS AFRICA

HOW SCIENCE TURNS EAVESDROPPER

CHILDREN HEAR A U-BOAT IN LONDON

The Mysterious Voices Round About a Mine

WOULD THEY MISS IT?

Little pitchers have long ears, runs an old saying, but the ears of our pitchers were not long enough in the war. The safety of our Empire depended, by land and sea, upon hearing, and the human ear, like the human eye, must needs be magnified by science and invention.

We won largely by eavesdropping. Science produced a marvellous electrical apparatus which, trailed in the water, detected sounds emitted five miles away! The notes were picked up by the instrument and conducted to a microphone, which intensified and magnified the sound so that the trained listener could say what craft it came from, and in what direction, and how far away!

Marvel of Sound

A really wonderful thing happened at Professor Bragg's lectures at the Royal Institution. After explaining how it was all done, the professor turned a switch, and the audience heard a submarine at sea!

There was the sound of the propellers as the hidden craft stole through the water; and a sound of knocking. Someone in the depths of the vessel, unconscious of listeners, was at work with a hammer, and his every blow was recorded. The instrument had picked up all the sounds, passing them through a microphone and on to the record of a gramophone; and, though the submarine itself may long ago have been sent to the bottom of the sea, the audience of children heard the noise of its passage.

The Problem Underground

Things just as thrilling happened on land, and the professor gave a remarkable example. One day, while our sappers were at work in their subterranean gallery, they heard enemy voices. Germans were mining towards our mine! The next day and the day after the voices were still heard. Would they dig their way into our mine? We did not want to blow up the mine at once, for that would have spoilt our plans.

A French invention called the geophone was brought into action. A little box was placed on the ground, connected with tubes leading to the ears, and so constructed that by moving the apparatus about, until the sound came equally into both ears, the direction of sound could be detected. The use of the geophone enabled our listeners to discover that the German sappers would miss our mine by a few feet! They did miss it.

Every fact we know about sound was used to our advantage in the war, and of all our knowledge not a single detail was wasted. A great triumph for science!

The Play-days of Switzerland Again



The first winter of Peace in Europe has seen the reopening of the happy days of Switzerland, where, in spite of the avalanche, boys and girls are finding pleasure in the glory of the snows

FIRES OF THE EARTH People Like Rats in a Trap

The earthquake in Mexico has proved more terrible than was at first imagined.

A chasm has opened in the earth two yards wide and three miles long, and lava poured out down the mountain sides in a stream 600 feet wide.

Farmers were killed while at work, and livestock was destroyed in hundreds.

The nature of the landscape has been changed, ranges of hills being levelled to the plains, and new mountains arising. The great landslides have obstructed the course of the San Carlos River. Twelve towns and villages have disappeared, and the natives, in a state of terror, have been sleeping in the streets lest new shocks should come and hurl their houses down upon them.

One account says that the eruption caught the people like rats in a trap, it not having been suspected that the small mountain, Cerro de San Miguel, which suddenly burst into eruption, was a volcano.

The human side of the catastrophe is terrible, and it is supposed that about 4000 lives have been lost.

MACQUARIE ISLAND Saving Its Wild Life

Though Macquarie Island, the great resort of Antarctic animal life that lies between Tasmania and the South Polar continent, has not yet been made a wild life sanctuary, some promising steps have been taken towards that end.

Tasmania has decided against renewing the lease of the island to the company which has been slaughtering penguins and seals wholesale for the sake of the oil extracted from their bodies, and, further, New Zealand has forbidden the capture of any seals for three years in the waters controlled by the Dominion.

These steps will do much for the preservation of the animal life of Antarctic regions. There will be an outcry, no doubt, against interference with trade, but a trade that threatens extermination of animal life is better exterminated by law than to be allowed to exterminate itself and animal life as well.

Australasia has now gone so far that it may easily take the final step and proclaim the island an animal sanctuary.

SHIP SPLITS IN TWO

The Disaster of Dead Man's Pool

STORMY SCENES ON A ROCKY COAST

There were terrible scenes off the Dorset coast during the recent stormy week-end.

A 5000-ton steamer, the Treveal, on its way with a cargo of jute from Calcutta to Dundee, struck the Kimmeridge Rocks, a dangerous ledge which forms part of that impressive rocky wall stretching from St. Alban's Head, near Bournemouth, to Weymouth Bay and Portland.

Wireless appeals were sent out for help, the captain's last message being "For God's sake send us assistance," but no help came, and at last the ship broke in two. It was worth £260,000, and had a cargo of jute worth £460,000, but it had also a freight worth more than that, for it had on board a crew of 42 men.

Cut Off from the Shore

The storm was so violent that communication was impossible from shore, and the rocket apparatus could not be used by the coastguards. The crew was exhausted after its long travail when the ship at last split in two near Dead Man's Pool, and after the captain had decided to abandon the vessel the men put out in two boats for the beach.

Both boats were overturned, and all the men were flung into the sea. Only seven of the 42 were able to reach the beach—one of them by a miracle, for he could not swim a yard. Somehow the waters carried him in, and he scrambled ashore, climbed up the cliffs, and reached a house on the top.

The first rescuer to reach the beach was the vicar, who stood up to his neck in the sea, cheering the men on.

A BIT OF GOOD FROM THE WAR

What the Germans Did for Us

The German prisoners have now been sent back to their own land, except a few who are detained for special reasons.

Here they were spread very broadly over the country, so that many people saw something of them while they were at work, and it would be interesting to have a complete summary of the kind and amount of work they did.

That work was a small set-off against the harm done deliberately by the German armies in France and elsewhere; but its total reached a substantial amount.

So far the only figures made public relate to drainage of land, and some idea of the magnitude of the work undertaken may be arrived at through figures issued by the Board of Agriculture.

In nine counties no fewer than 346,893 acres were improved by drainage, Yorkshire coming first with 100,000 acres, and Essex second with 89,000

£100 FOR A C.N. BOY**YOUNG COLOURIST OF 14****A Day's Work that will Help
His Education****A HUNDRED AND ONE AWARDS**

Tremendous interest was created by our offer of a grant of £100 towards the education of the boy or girl who sent in the best coloured copy of the cover of My Magazine for January, and it has been a great pleasure to go through the sackfuls of pictures sent in.

A week's work reduced the thousands to hundreds, and the hundreds to scores, and the scores to six, and from this six the best was chosen after long deliberation, all names being hidden from those who were making the selection. There has been no possibility of favouritism, nor of consideration of any other factor save merit, and even at the moment that this announcement is being written the Editor, who made the final decision two days ago, does not know the winner's name. He looks at it for the first time to write it here, and finds that the happy boy is Hubert J. Williams, age 14, living at 8, Oak Grove, Anerley, London.

His picture is the best of all the thousands sent in, and we are glad to learn that the boy's father will use the £100 to send Hubert to an art school.

Nothing would have pleased the Editor more than to have given away the hundred pounds a hundred times, but editors are only human, and all that can be done is to fulfil the conditions of our scheme, and send the following readers ros. each.

James Aird, 30, Kenmure Avenue, Edinburgh (age 12); N. Alletson, 9, Newall St., Littleborough (16); Kathleen Archer, Osborne House, St. Helen's, Hastings (15).

Clifford Barber, 1, Foundry Place, Haverhill (16); Leonard L. Barnes, 14, Sydenham Rd., E. Croydon (15); Ronald Baverstock, 2, Hyde Abbey Rd., Winchester (12); D. Margaret Bayan, 63, Chaworth Rd., West Bridgford (16); Winsome Beaven, The Heath, Dartford (16); William Bedford, St. Vincent's School, Torquay (14); Vera Begg, 73a, Hambalt Rd., Clapham (12); Edward Bell, Eastcroft, Langdon St., Tring (17); William Blake, 59, Tudor Road, Easton (13); Maisie Booth, Holker Bank, Cark-in-Cartmel (16); Helen Brook, 1, Sussex Terrace, Burgess Hill (12); Dorothy Brooks, 16, Rothesay Rd., S. Norwood (16); Fred Burrell, 40, Buchan Rd., Nunhead (13); E. Byrd, 21, Wellfield Rd., Roath (14).

Isabella Caldwell, Darvel, Ayrshire (13); Bernard Casson, St. Augustine's Vicarage, Leicester (16); Kathleen Chaplin, The Manse, Lavenham (17); Donald Clarke, Camborne, Cornwall (14); W. R. Clements, 30, Wincott St., Kennington Rd., S.E. (14); John Clifford, 60, Doyle Gardens, Willesden (14); Marjorie Cobham, Dunan, Aldeburgh (15); Leone Cody, 77, Shirland Gardens, Maidan Hill (11); Mildred Cox, Sutton, St. Helens (13); A. E. Crouchley, Milnrow, Rochdale (16); Cissie Cuthbert, Eshton Wood, Gargrave (14).

C. W. Davenport, 12, Wright St., Coventry (15); Norman Dawson, 4, Pimhole Rd., Bury (13); Doris Dickins, 26, Montem Rd., New Malden (13); Helen Drew, Harnham, Salisbury (15); Armorer Dron, Giffnooch, Glasgow (16); Doris Duckworth, 39, Cross Lane, Newton-le-Willows (15); Ronald Dunton, 112, Park Avenue, Barking (16).

B. L. Elphick, Chaucer Rd., Ashford (16); Margaret Emmett, Bosham, Chichester (14).

Jack L. Fairhurst, 395, Ivydale Rd., Nunhead (14); Phyllis Field, 54, Creffield Rd., Colchester (16); Janet Froggatt, West End Avenue, Pinner (15).

Nan Gibson, Armont, Falkirk (15); Albert Gill, 91, Osborne Place, Aberdeen (16); Norman Gregory, 4, Leven St., Kirkdale (11); Victor Gregory, 4, Drew St., Brixham (16); Cecily Gulliver, Old Portsmouth Rd., Southampton (16).

Irene Halsted, Rudham Orphanage, Purley (16); Stanley Hand, 40, Felbrigg Rd., Seven Kings (15); Evelyn Hardie, 54, Warwick Rd., New Southgate (15); Edwin Harvey, Sparkhill, Birmingham (13); Francis Hiscox, 23, Adam St., Burnham-on-Sea (14); Eileen Hill,

Continued at bottom of next column

GIANT OF THE AIR**4200 Horse-Power Aeroplane**

A new aeroplane is being constructed for the R.A.F., which is said to be four times larger than any existing machine. It is to have six Rolls-Royce engines, giving in all 4200 horse-power, and will be capable of carrying 50 passengers.

A Handley Page machine flew over London one afternoon in 1918 with 41 persons on board, and this is still a record for the number of people carried.

Another aeroplane, which is being built by Fokker, the Dutchman who designed so many successful German fighting machines during the war, is to have a smoking-room and sleeping berths, and will be able to carry no fewer than 60 passengers. It is to weigh 30 tons.

POOR DOGGIE**The Not-wanted Friend**

Most people are kind to dogs, but a few are not, and the unkindest thing they can do if they do not want a dog is to turn it out in the street and lose it.

The secretary of the National Canine Defence League, Mr. C. R. Johns, writes from 27, Regent Street, London, to say that the dog-lovers of London support 19 institutions where dogs may be received at a very small cost, and sometimes for nothing; and that if anyone wishes to dispose of an unwanted dog, and will write to him, he will send them the nearest address, where the dog will be received with kindness.

We gladly give publicity to this humane appeal.

Continued from the previous column

Nightingale Rd., Hampton (14); Frank Holleyman, 163, Gipsy Rd., West Norwood (15); Doris Hubbard, 129, Abbeville Rd., Clapham (15).

Gladys Jones, 123, Havelock Rd., Derby (15); Anna King, 83, West End Avenue, Harrogate (16); Ernest Knighton, Handsworth, Birmingham (16).

Charles Ledgerwood, Stoke, Devonport (16); Constance Lilley, 140, Faraday Rd., Wimbledon (14); James Lucas, 28, Oxford St., Rugby (16).

Agnes Martin, 63, Birchanger Rd., S. Norwood, (14); Vernon Milner, Wells Rd., Nottingham (14); Audrey Moir, 49, Layland Rd., Lee (15); L. A. Moyns, Erdington, Birmingham (14); Sylvia Munday, Eastney Barracks, Portsmouth (15).

Edward Neale, Longsight, Manchester (16); Stanley Neale, 41, Shooter's Hill Gardens, Eltham (16); Vera Neale, Key St., nr. Sittingbourne (16).

Leslie Page, 181, Browning Rd., Manor Park (16); May Palmer, All Saints' Vicarage, Blackheath (16); G. Paterson, 54, Trinity St., Oldham (16); Marjorie Pearson, 19, Aston Rd., Southsea (13); E. Phelps, Cucklington Rectory, Wincanton (16); G. F. Phillips, 194, Acre Lane, Brixton (13); Kathleen Pilbury, 29, Portland Rd., Finsbury Park (16).

Donald Reesby, 6, Norfolk St., Coventry (16); G. M. Robinson, 5, Psalter Lane, Sheffield (15); Marjorie Robinson, 5, Psalter Lane, Sheffield (14); William Rothwell, Springfield, Ramsbottom (15).

R. H. Sams, 18, Jevington Gardens, Eastbourne (16); William Sanders, 7, Grosvenor St., Barnstable (17); Dorothy Shackleton, 46, Groveland Avenue, Holylake (14); H. W. Simpson, 41, Bradford St., Accrington (12); O. Singleton, Kensington House, Oxtou (16); Marie Smith, Chant Villas, Leven (16); Peggy Stack, The Star House, Seaford (16); Hilda Steel, Handsworth, Birmingham (15); H. A. Stillingsfleet, Pontsticill, Merthyr Tydfil (16); F. Strand, Chester Rd., Sunderland (16).

A. Thompson, Foleshill, Coventry (16); Norah Tootal, Trammere, Birkenhead (16); Leonard Turner, 42, Devereux Rd., Wandsworth (15).

C. Vowner, Cyprus Rd., Burgess Hill (15); Estra Walker, 16, Scarcroft Rd., York (15); Jack Ward, Rothwell Haigh, nr. Leeds (13); Molly Warrington, Wincobank, Sheffield (11); Joanna Weskett, 42, Springfield Rd., Crawley (16); Martha Whincup, Stanningley, Leeds (15); W. E. Williamson, 468, Katherine Rd., Forest Gate (15); Freda Winbolt, 14, Mornington Crescent, London (12); John Wood, Dobb-cross, Oldham (16).

To all the thousands not here mentioned the Editor sends his warmest wishes, and trusts that the joy of doing a good thing has brought its own reward.

OUR TWO ENEMIES**IN THE WAR****Entrenched Germans and****Entrenched Stupidity****A YEAR OF NEEDLESS SUFFERING**

While the war was being fought people's tongues were silenced. They could not criticise for fear of doing harm, besides which they could not know much of what was being done.

Now reports are being printed showing what went on behind the scenes in many official places, and tongues are usefully unloosed.

One result of the freedom of speech is that we can all begin to see how incredibly stupid and slow were a number of men in authority who were supposed to be working hard for victory, but were really hindering it by preventing splendid inventions from being tried.

The latest story is that of Mrs. Hertha Ayrton, the first practical woman of science in our land. When the Germans began to use their horrible, torturing, poison gases, Mrs. Ayrton invented a fan which, properly used, would clear away the deadly gas.

She offered the scheme and fan to the nation, free of all charges, but, will it be believed, it was a year before this invention was tried in the trenches.

When the fans were really tested, 5000 of them were ordered, but before that happened probably thousands of gallant British soldiers suffered from poison gas, as they need not have done if stupid men had not blocked the way.

It was only when a way was privately forced past the hinderers that a trial was secured. Is there any wonder that the war was long, with the British army fighting entrenched Germans and inventors fighting entrenched stupidity?

WHERE DO YOU COME FROM?**The Geography of a Man**

One thing, if no other, the war has taught us all: it has taught us that we all depend on other nations. But how much we do depend on them is hard to realise even now.

Where do you come from, as you stand ready to go to town? Our artist has drawn a picture of a very important gentleman. He is the dandy of the League of Nations, for he comes from almost everywhere. This is his geography.



Hat: Cork from Spain, silk from France, leather from America, Dutch cardboard.

Collar: Linen made of flax from Russia.

Woollen Vest: Wool from Australia.

Coat: Tweed from Scotland.

Buttons: Bone from Belgium.

Silk from Italy.

Trousers: Buttons from Belgium.

Socks: Merino from South America.

Boots: Leather from India and America.

Laces: Mohair from Turkey.

Heels: Rubber from the Congo.

Brass Shoe-nails: Copper from Portugal with zinc from Germany.

Gloves: Kid from Asia Minor.

Tie-pin: Gold from the Yukon and Diamond from South Africa.

Watch-chain: Gold from California.

Umbrella: Mount of silver from Chili, handle of ivory from Central Africa,

Malacca stick from Sumatra.

Spectacles: Gold from Australia or the Transvaal, lenses from Belgium.

Cigar: Tobacco from Cuba.

A GREAT ROGUE**Romantic Adventures of a****Boer****THE MAN NO GAOL CAN HOLD**

Fritz Joubert Duquesne, one of the cleverest rogues alive, has been heard from. He has appeared in Holland, unless a message sent from that country is one of his tricks for baffling those who are searching for him.

Duquesne is the son of a Boer general. During the Boer War, though he was only 17, he became famous as a scout opposing the British. At last they captured him. Then came the first of his three daring escapes.

He was caught again while daringly attending a dinner at Cape Town in honour of Lord Kitchener. When the detectives recognised him he was sitting at the table pretending to be a guest.

To secure him this time he was sent across the Atlantic to the Bahamas, but by springing off a cliff into the sea and swimming across a bay infested with sharks he again escaped.

While hiding by the shore he was discovered, it is said, by the daughter of a British official, but he so cleverly worked on her feelings that she helped him to escape to New York, where she followed him and married him.

Next he appeared in South America, but disappeared from there by giving out the news that he had been killed fighting against Indians in Bolivia.

This gave him an opportunity during the war of reaching the coast, sailing in an English ship, and blowing her up. For this piracy he was imprisoned in New York, but once more escaped by pretending to be paralysed, and since last May he has not been recognised anywhere by the detectives who have been on the watch for him.

Now he says he is in Holland. It may be so, or it may not. Who knows?

SAD ILLNESS OF A PIECE OF TIN**A Chapter in the Life of Matter**

Do metals ever suffer from disease? The question seems ridiculous, yet Mr. Arthur Turnbull points out in his interesting book on "The Life of Matter" that something not unlike this is seen in the case of tin.

A remarkable incident has been recorded where a quantity of military buttons, consisting mainly of tin, was delivered by the manufacturer and placed in store. On the next official inspection the buttons had become a shapeless mass of grey powder.

The tin had changed in weight, shape, and electric condition; and a Dutch chemist, speaking of this strange behaviour of the metal, says the impression made by an examination of a piece of tin thus changing is that of an object overtaken by disease. As a matter of fact, the phenomenon has this in common with disease, that it is contagious.

The disintegration into a grey powder, which marks the progress of the attack, proceeds gradually until, in the case of thin bodies like organ-pipes, the object has been completely destroyed. The strange change is not due to the influence of the atmosphere or its moisture, but is a question of temperature.

This and many other enthralling points are dealt with in this helpful book, published by Williams & Norgate at 7s. 6d.

Pronunciations in this Paper

Aix la Chapelle . . . Ay-lah-shap-pel
Akaba . . . Ah-kah-bah
Charlemagne . . . Sharl-mahn
Duquesne . . . Dew-kane
Macquarie . . . Mah-kwor-ee
Storthing . . . Stor-ting
Tanganyika . . . Tahn-garn-ye-kah

GREAT MAN'S MODEST PRIDE

WHAT GAVE HIM MOST PLEASURE IN LIFE

Sir William Osler and His Thirteen Friends

VILLAGE OF CHAUCER'S SON

A late postscript, and a charming one, has been added to the flood of affectionate tributes paid to the memory of Sir William Osler, the great physician and teacher of whom death has robbed the world.

Sir William's achievements, as we told last week, brought him honours from practically all civilised nations, and the list of his distinctions was too long to publish. But what among them all, think you, afforded him the most constant happiness? It was the appointment of honorary physician to the old almshouses known as God's House at Ewelme, in Oxfordshire.

The charity houses 13 old pensioners, and this world-famous scientist was their unpaid doctor. It was his proudest office to visit these poor old people, and to lavish on their comfort and well-being all the knowledge and skill which made him one of the foremost men of his age. It is another example of the enduring joy that comes from simple things.

Sir William Osler rose to fame in the New World, and in coming to Ewelme he came to minister to one of the most ancient charities in the Motherland, for Ewelme was old in history long before Columbus found America. The old manor was given to Thomas Chaucer, a famous Speaker of the House of Commons, and son of the immortal poet, years before Columbus set forth on his historic voyage.

Men from Ewelme fought under the younger Chaucer at Agincourt; and nothing pleased Osler more, when his work among the pensioners was done, than to take visitors into the ancient village church and show them where the poet's son lies under one of the most beautiful alabaster monuments in England.

ENEMIES NO MORE

Peace with Germany Again AMERICA LAST TO COME IN AND LAST TO GO OUT

The Great War of Europe came to a formal end on Saturday, January 10, 1920, after an armistice lasting from November 11, 1918. Never before in history had an armistice extended into three years.

All the Great Powers concerned, except America, attended in Paris to sign the final Peace, and the moment the two German signatures were written on the treaty the state of war with Germany was at an end.

The curious fact of the situation is that the only nation now technically at war with Germany is America, the last nation to come in and the last to go out. But the difficulties in America will pass away, and all will be well.

The final settlement of Peace was purely formal, but it will have enormous consequences, for many things must date from it, and trade will begin to find its level again. Most important of all, however, is the fact that the League of Nations is now established, and the President of the Peace Conference telegraphed on Peace Day inviting all neutral nations to come into the League.

The League of Nations is, therefore, now finally launched, and all the world awaits the day when America, which gave birth to this great idea, will take her place among the nations, not merely as a single State, but as a leader of the great World Powers.

A MONSTER MARKET

Nine Trafalgar Squares of Shops

Paris is planning how to bring all the world to her to buy and sell. Arrangements are being made to erect a great combination of shops, 5000 of them, under one roof, selling everything, and forming a meeting place for the world's traders and purchasers.

The great market will be nine times the size of Trafalgar Square, six storeys high, and will have a frontage of 284 yards, when it is finished, two years hence. Already, it is said, Americans have made applications for 500 out of the 5000 shops in which to exhibit their goods.

At present, the scheme is "in the air," for £4,000,000 is needed to give it a start; but whenever it becomes real no doubt Great Britain will be there.

STARVING CHILDREN

The Pope's Appeal

The sufferings of the children of Central Europe, and most keenly of all in Austria, have touched the hearts of humane people everywhere.

The Pope, in a tender letter sent out from Rome, addressed especially to Catholics, but inspired by a spirit that should commend it to all who have a sense of humanity, ordered public prayers and a general collection on the festival of the Holy Innocents; commemorative of Herod's massacre in Bethlehem, on behalf of the suffering children. Pope Benedict has also given £4000 himself for the relief fund.

When the total fund raised by such appeals to Christian and humane feeling has been ascertained, it will be found, we believe, that the bitter want of the childhood of Central Europe has thrilled the heart of mankind with most helpful effects, including, besides money, the toning down of feelings of national enmity excited by the war.

DENEHOLES

Ancient Mystery Made Plain

New deneholes have just been found in Essex. What is a denehole? The question has often been asked.

Deneholes are deep holes in the ground which occur in the southern counties, and have been explained by many theories.

The latest examinations show that they are not at all mysterious. They are simply shafts that have been sunk, some long ago and some in comparatively recent times, to get a special kind of chalk suitable for lime burning. The industry having ceased in its ancient form, human fancy has played around these holes, and invented mysteries to explain them.

It has even been suggested that the ancient Britons lived in these holes or stored their food down the shafts and in the chambers opening out from the bottom; but the romance is not true, and all such theories are merely mystery-spinning where no mystery exists.

WILD GEESE GO SOUTH

Great Flocks Pass Over Devon

Immense flocks of wild geese have lately been seen and heard, by day and night, passing over the Devon coast on their way south.

The crew of one sailing ship, which arrived in port about the New Year, reported that while fog-bound in the Channel about Christmas time they encountered a large "gaggle," as the wild-fowler terms it, flying close to the surface, and travelling so fast that several birds failed to avoid the rigging, and were killed.

IN THE AUCTION ROOMS

These prices have lately been paid in the auction rooms for objects of historic interest:

A Chippendale bookcase	£462
Two globes of the world	£388
A Chippendale armchair	£325
A silver dish	£228
A silver cream jug	£39

GREAT JUPITER

EARTH CATCHING UP THE MIGHTY WORLD

Whirling Planet Like a Sea of Molten Lava

CONTINENTS THAT "MELT AWAY"

By Our Astronomical Correspondent

The great planet Jupiter is now at his best, shining with a steady lustre in the south-east of the evening sky. Being much brighter than any of the stars, there is no mistaking him.

Jupiter is certainly the most beautiful object seen in the heavens now, and he is at his greatest brilliance, being at his nearest point to the Earth, about 402 million miles away, whereas when we saw him in June, down in the west, he was nearly 200 million miles farther off.

The reason for this was that the Earth, spinning along at 19 miles a second, left Jupiter behind; as he can only travel eight miles a second; while he has a round track of 3000 million miles compared with the Earth's 570 million. So that the Earth sped round to the other side of the Sun, which came between the Earth and Jupiter on July 21 last.

If the Earth Were Jupiter's Size

Since then the Earth has been coming closer to Jupiter, until now she is at her nearest, and is about to pass between the planet and the Sun. Then we shall begin to leave Jupiter behind again, and he will seem to get smaller; for, unlike the Sun and Moon, the planets vary greatly in their apparent size because their distance varies so much.

If our world were where Jupiter is, it would seem to be a quite insignificant star, for so much greater is Jupiter that the material of 1300 Earths could be put into a great globe of Jupiter's size. Were our world as large as Jupiter, a voyage to New Zealand would be equal to half-way to the Moon.

20,000 Miles of Clouds

Though there is the remote possibility that tropical forests may exist in Jupiter's polar regions, as they once did at the Earth's poles, there are reasons which make this highly improbable, for Jupiter appears generally to be in a condition similar to molten lava, and it has even been suspected that this planet glows.

Broad belts of dense cloud masses can be seen stretching across the planet from side to side, parallel with his equator, and from 15,000 to 20,000 miles wide, so that the Sun could only very rarely be seen through this dense mass of vapour enveloping Jupiter's tropics.

Narrower banks of cloud and broken masses stretch across Jupiter north and south of the equatorial belt, and through these more permanent features appear, some of them having been watched and measured for years.

Where Nothing Lasts

But nothing is actually lasting on Jupiter, and, after the lapse of months or years, the islands or continents that seem to have come into existence melt away, as if sinking in the vast fluid mass that whirls round on Jupiter at an enormous speed. The rotation of Jupiter is only just under 10 hours, so that a body at his equator is carried 270,000 miles in 9 hours 50 minutes.

But the "great red spot," looking like a sort of Australia, which years ago appeared to be forming, takes 9 hours 55 minutes to go round, while other parts travel still more slowly, so it is clear that nothing is fixed or at all stable on Jupiter, for we cannot imagine Australia and our continents revolving on our Earth at different rates; indeed, if they varied in the slightest, it would lead to colossal disaster.

G. F. M.

FRANCE AND HER TROUBLES

NATION DESPERATE IN VICTORY

The Terrible Shortness of Coal and What It Means

SUMMER-TIME BEGINS IN FEBRUARY

France is victorious. She has her lost children back. The mourning draperies are raised from the monuments of her lost provinces in the Place de la Concorde. But France is cold and cannot be comforted, for war leaves behind, for victors and losers too, misery and hardship and ruin.

One of the chief troubles of France just now is that she is short of coal, so short that she is to begin summer-time on February 1. In this country we do not begin till April, but France must save all the light she can.

Because of the want of coal French workshops are working short hours. Many lifts and public clocks are stopped as coal is needed for making electricity to work them. Trains are slow through the badness of the little coal that can be had, and many are cancelled.

England is sending France 400,000 tons of coal a week, and our neighbours want and expect much more, for the present supply only allows a French household 5 cwts. a month, and trade and industry are often brought to a standstill.

We grumble in England, but we do not really know what prices and inconveniences are as they are felt abroad.

DIVING EXTRAORDINARY

Negro's Remarkable Invention WHERE NO MAN HAS BEEN BEFORE

Up to the other day the greatest depth to which any man had ever dived was just over 200 feet. Even with the best diving-suits it was impossible to go lower, owing to the enormous pressure.

Now a negro has invented a new kind of costume, which enables a man to go nearly twice as deep. It is built up of coats of metal, with flexible joints, and the diver's hands are quite enclosed. In place of hands he uses hooks, which are worked from inside.

An American diver put on this suit and went down into the sea off Boston Harbour to a depth of 360 feet, where the pressure of the water was 150 pounds to the square inch, compared with just over 14 pounds on the earth. The diver's suit weighed nearly four cwts., and the man was lowered into the water by a crane. Until this feat was performed no one thought it possible.

RISE AND FALL OF THE HARVESTS

Figures Before and After War

Which of the world's crops is the greatest, reckoned in hundredweights? If you guess you will probably guess wrong.

Here is the order, in millions of cwts.: maize, the champion crop, 1463; wheat, 1111; oats, 617; potatoes, 424; barley, 257; rice, 215; sugar-beet, 185; rye, 94.

Compared with the 1918 crop the 1919 crop was as follows: maize up 15 per cent.; wheat down 7 per cent.; oats down 7 per cent.; potatoes down 12 per cent.; barley down 15 per cent.; rice up 10 per cent.; beet up 17 per cent.; and rye unchanged.

Compared, however, with the whole period of the war, maize was up 4½ per cent.; wheat down 3½ per cent.; oats down 9 per cent.; potatoes up 3½ per cent.; barley unchanged; beet up 15 per cent.; and rye up 26 per cent.

The changes show that we can never judge the world's crops by the crops grown in our own country.

CHIEF SCOUT'S COLUMN

On Doing Good Turns HOW TO MAKE THE WHOLE WORLD HAPPY

By Sir Robert Baden Powell

IN the Boy Scouts and the Girl Guides there is a rule that every member shall do one good turn to somebody every day. It sounds easy, and it is quite an easy thing to do if you only remember to do it. The difficulty with boys and girls is that they do not always remember.

So the Boy Scouts tie an extra knot in their tie to remind themselves, and it is wonderful how that helps. They really do carry out their good turns to other people.

The story goes that a Boy Scout once woke up in the night and remembered that he had forgotten to do a good turn that day. He was so worried that he could not go to sleep again, and he felt very unhappy.

Hard on the Mouse

Suddenly he heard a mysterious scratching in a dark corner of the room; it was a little mouse that had got caught in a trap. And then a grand idea came to him. Instead of doing a good turn to a human, you can do it to an animal, and it counts all the same; and so our Scout jumped out of bed and went to the trap, very carefully, got his hand in, and gently laid hold of the little mouse. What do you think he did with it then? Let it go? No. He went quietly downstairs with it, and gave it to the cat! Then he went back to bed and slept soundly, because he had done his good turn—to the cat!

Well, of course, that is only a funny story, and 1st Hanwell Troop, who is not the kind of good turn that for rescuing girls from drowning but one thing about that boy is worth imitating: he had got so used to doing his good turn that he simply could not sleep if it was not done.

By a good turn I don't mean that you have to wait for somebody to be drowning and then dive gallantly in to the rescue.

The thing to do is to look and see where a helping hand is wanted, and to give it. You can generally do this very well in your own home, by helping your mother, by making your bed, cleaning your boots, putting things tidy, and in this way saving other people from having to do it. And you can get loads of chances, also, as you go along the roads, or in school among your schoolfellows, or at work or play.

One Good Turn Deserves Another

Scouts and Guides must do at least one good turn a day—but they are not always satisfied with one. They go on and do others if they see the chance. And what a difference it would make in the world if every boy and girl, whether Scouts or not, resolved this year to do not less than one good turn to somebody every day!

Here is another funny instance of what not to do. It is said that a Boy Scout once saw a bit of orange peel lying safely in the gutter, so he did his good turn by putting it back on the pavement. How would that be a kindness to anyone? Well, there must be other Scouts looking for a good turn to do, and this would give them their chance: they would find the peel and be able to put it into the gutter to prevent people slipping. So he did his good turn by helping others to do theirs!

See if you can't beat that. R. B. P.

The Sounds of a Country Lane

HOW THE TREES TALK TO US AS WE PASS BY

The Glorious World of Sound in Which a Blind Man Lives in Yorkshire

VILLAGE GROCER WHO LOST HIS SIGHT AND FOUND FAME

WE laugh at the Cockney valet who, when taken to his master's country seat, complained that he could not sleep because of "the 'owling' of the nightingales"; and those to whom the song of the nightingale is precious marvel that Henry Fawcett, the famous blind Postmaster-General, should rise from a sleepless bed, open his window, and fling out his soap, towels, and toothbrush to silence the singer of the night.

The truth is that the country has its constant choir of voices. There is nowhere utter silence, save in a vacuum. The country lane is never still, its voices are ringing winter and summer, and Professor Bragg has been telling us what the voices are.

Music of the Trees

Each tree has its special note, a note struck by the wind. The poplar, an exquisite picture as its leaves tremble and rustle, gives forth its characteristic sound readily, because its leaves are pinched and flexible. The leaves of beech and oak are of tougher texture and respond less readily. Size, shape, and strength, go to determining each note, but each sound, as it emerges, can be detected.

There is a blind genius named Wilkinson living at Leeds, who surpasses most of us as a naturalist. He is one of our foremost botanists, yet he has never seen a flower or tree. By taste and smell he can tell the name of any plant put before him.

Lark's Song in the Sky

Through patiently cultivating his sense of hearing, he can tell the sound of every tree at every season of the year. He knows where meadows, hedgerows, and woods lie. If he hears a lark sing he knows that the bird is hanging in the sky above a meadow; a blackbird's gush of song tells him of the presence of hedgerows; he knows exactly the song sung by the oak wood, and the echo it returns.

Sounds, then, have a message for the trained ear. There is much to which we may listen with delight when we have understanding. What a tumult in the wind it is that gives rise to the song of the telegraph wires! It is not the travel of electric currents that calls forth those melodies: the wires oppose the passage of the air and cause miniature whirlpools, and the poles at which we hear the harmonised choruses are the sounding boards to make the notes chime out.

Listening for the Voices

Trees and telegraphs all have voices in the supposed quiet of the country lane. So, of course, have the birds. But do we hear them all? The professor thinks not. He believes that the wren has notes too high for the human ear to catch. Then there are the myriad voices of the insects.

Grasshoppers and crickets contribute to the chorus in the lane, the cricket producing his chirrup by means of a little rasp-like mechanism which acts in the same way as a bow drawn across the strings of the violin.

Beetles sound their calls by means

of rasps rubbed against parts of their horny shells. The grown-up papers made the professor speak of other beetles employing their backbones as a sound-producing mechanism, but Professor Bragg did not mean backbones, for no insect has a backbone.

We divide all living creatures into two grand divisions—those with backbones and those without; those with backbones have risen high above the backboneless in the scale of life.

800 Trees Known by Touch

But let that pass. The notes evolved are real enough. There is no meaning in the whisper of the trees; there is only harmony or chilly discord in the songs chanted by the wind-strummed wires. But every bird and every insect has a meaning for its note.

A correspondent of the Times has been to see Mr. Wilkinson, the blind scientist to whom Professor Bragg referred in his lecture. Mr. Wilkinson lives in Leeds, and has had a degree of science conferred upon him by the university of that city. He is now 64, and has been blind since he was 22.

Immediately on becoming blind he took up botany, and pursued it until he became a well-known authority.

Concert of the Wood

Before his affliction he was a grocer, but had distinct artistic tastes and gifts. He is able to name 800 British flowering plants, foreign trees and foreign weeds, simply by touch.

During heavy showers he discovered that trees made different noises, and he could tell them by the sound from the falling rain. The most silent tree, he believed, was the Scots pine. These trees only made an occasional hiss, even in very severe thunderstorms. The oak was the noisiest tree in a storm, he said, because it reflected the echoes by its leaves and stem, and raindrops had a more drumlike effect upon it than upon any other tree.

Tell-tale Handshakes

It is in a wood composed of oak trees that one can hear birds at their best. Among pine trees, owing to the softness of the wood, birds are not heard to the same advantage, the wood absorbing the sound, whereas the oak gives it fuller play because of its hardness. The poplar tree, being sensitive to electricity, is almost silent in a thunderstorm, and yet after the storm is over it is more noisy because the twigs are more elastic.

Mr. Wilkinson said that it was a delight to shake hands with some people. "I know one of the finest surgeons in the City whose handshake is nervous, but who can handle the lancet with great skill," he said. "Some people judge too much by appearances. If I could go into Armley Gaol and shake hands with the prisoners I could tell at once which were habitual criminals and which were not. People who are not quite what they should be are never well balanced in action. They have some small trait in their hands or feet which gives them away."

THE WEEK IN HISTORY

TWO GOOD MEN AND A BAD ONE

Gordon's Last Day at Khartoum

THE FAITHLESS STUART KING

- Jan. 25. Lord Leighton died in London . . . 1895
- 26. General Gordon killed at Khartoum . . . 1885
- 27. The last German Kaiser born in Berlin . . . 1859
- 28. Charlemagne died at Aix-la-Chapelle . . . 814
- 29. The Victoria Cross founded . . . 1856
- 30. Charles I. beheaded at Whitehall . . . 1649
- 31. Guy Fawkes executed at Westminster . . . 1606

General Gordon

CHARLES GEORGE GORDON, one of the most romantic figures in our modern British history, was born at Woolwich on January 28, 1833, his father being a general of Scottish descent.

After service in the Crimea and China he was allowed to command the Chinese Imperial army which suppressed the Taiping rebellion in 1863-4, after 33 battles. Through this success he became known as "Chinese Gordon." Rewards were offered him, but he refused them all.

In 1874 he became Governor of Equatorial Egypt under the Khedive; and in 1877 was Governor-General of the Sudan and suppressor of the slave trade.

This experience, and his remarkable influence over the men of the East, led to his being appointed by the British Government, in 1884, to withdraw the Egyptian troops from the Sudan, which was in a state of rebellion; but on reaching Khartoum he did not carry out his orders, but tried to hold the city, and was killed when it was captured, two days before the arrival of British troops to rescue him.

Gordon was an intensely religious, wholly fearless, magnetic man, impulsive and changeable, and relied on inspiration rather than judgment.

Charlemagne

CHARLEMAGNE, or Charles the Great, King of the Franks and Roman Emperor, was the most renowned ruler in Europe during the Middle Ages.

Aix-la-Chapelle was his home. There, it is thought, he was born in the year 742; and there he lived and died.

Early in his reign he was engaged incessantly in wars—with the heathen Saxons, who at last accepted Christianity; with the Bavarians and the Lombards; and with the Moors in Spain. His successes in Italy led to his being crowned Roman Emperor in Rome by the Pope on Christmas Day, 800. His kingdom extended at last from the Ebro in Spain to the Elbe in Germany, and eastward to what is now Austria.

But it is as a promoter of learning, and not as a conqueror, that he is now honoured. It was largely through his influence that Latin became the language of civilisation in the Middle Ages.

After his death his kingdom fell to pieces; but he became one of the great heroes of romance, about whom a hundred fanciful tales were invented, and told and sung throughout Europe.

Charles Stuart

CHARLES THE FIRST was the one English king beheaded as a traitor.

He was a Scot—as we often forget—born in Scotland before his father became King of England; and as a Scot he appealed again and again to his countrymen to help him. But he never understood sound government, or the love of plain and truthful dealing.

The two chief features of his career were his double-dealing and his courage.

His deception brought his country to civil war and himself to the scaffold. He was never true to his word or friends.

His courage was most strikingly seen in the bravery and dignity with which he met his doom when his deceit had left no ground for any man to trust him. During his trial and at his execution he carried himself like a king indeed, and made his enemies appear in the wrong, though they were surely in the right.

TREMENDOUS CRACK IN THE EARTH THAT RUNS THROUGH AFRICA: THE GREAT RIFT VALLEY

WE think of a valley as a place along which sportive streams make their way, where herdsmen pasture cattle and shepherds tend sheep; a place worn down from surrounding levels by the flow of rivers, and the wear and tear of wind and frost, heat and cold. And such is a correct picture of the average valley, and a summary of its history.

But there are valleys which are not the result of peaceful processes such as these; valleys torn apart by old Mother Earth in one of the frightful convulsions caused by her cooling and contraction.

Sight for the Man in the Moon

The mightiest of these valleys caused by violence is that which Professor J. W. Gregory has lately been describing, the Great Rift Valley of Africa. We look at Mars through a telescope and see signs which some observers say are men-made canals, but the marks are so slight and indefinite that nobody can be sure of what they mean. But if there were a man in the moon he would see with the naked eye this Great Rift Valley of our earth,

for it extends over one-sixth of the earth's surface. A telescope would enable him, it is thought, to follow the main line of its course. He might regard it as a canal, or as some inexplicable scar upon the fair face of our Mother Earth.

Scar on Mother Earth's Face

A scar it is, a scar recording an awful wound, but nature repairs her ravages, and the enormous valley now forms the bed of seas and lakes and the course of important rivers.

The valley is continuous, running from Northern Palestine southward through Africa, to terminate just north of the Transvaal. In its course it gives us the Red Sea and the important gulfs of Suez, Akaba, and Aden; it crosses Abyssinia, runs through British East Africa, and cleaves a mountain range 7000 feet high; it passes through Uganda, where its walls are so steep that trains used to be hauled by cable.

It embraces Lake Nyassa, which, though nearly 1600 feet above sea level

at the surface, has its bed 700 feet below sea level; it forms the bed of Lake Tanganyika, which, although its waters stand 2700 feet above sea level, is our second deepest inland sea, with branches forming the bed of the Upper Nile.

This is no work of rivers or winds. When the earth contracts, enormous pressure is exerted. Mountain ranges are forced up out of the solid earth. Collapses occur on other parts of the surface, and so ocean-beds are formed. A shrinkage of one-25th of an inch will cause 30,000 million tons of lava to be forced out of the earth. During the time the teacher's piece of chalk was being formed in the sea, mountains were rising and oceans forming elsewhere, and the Great Rift Valley came into being.

Mighty Ridge That Collapsed

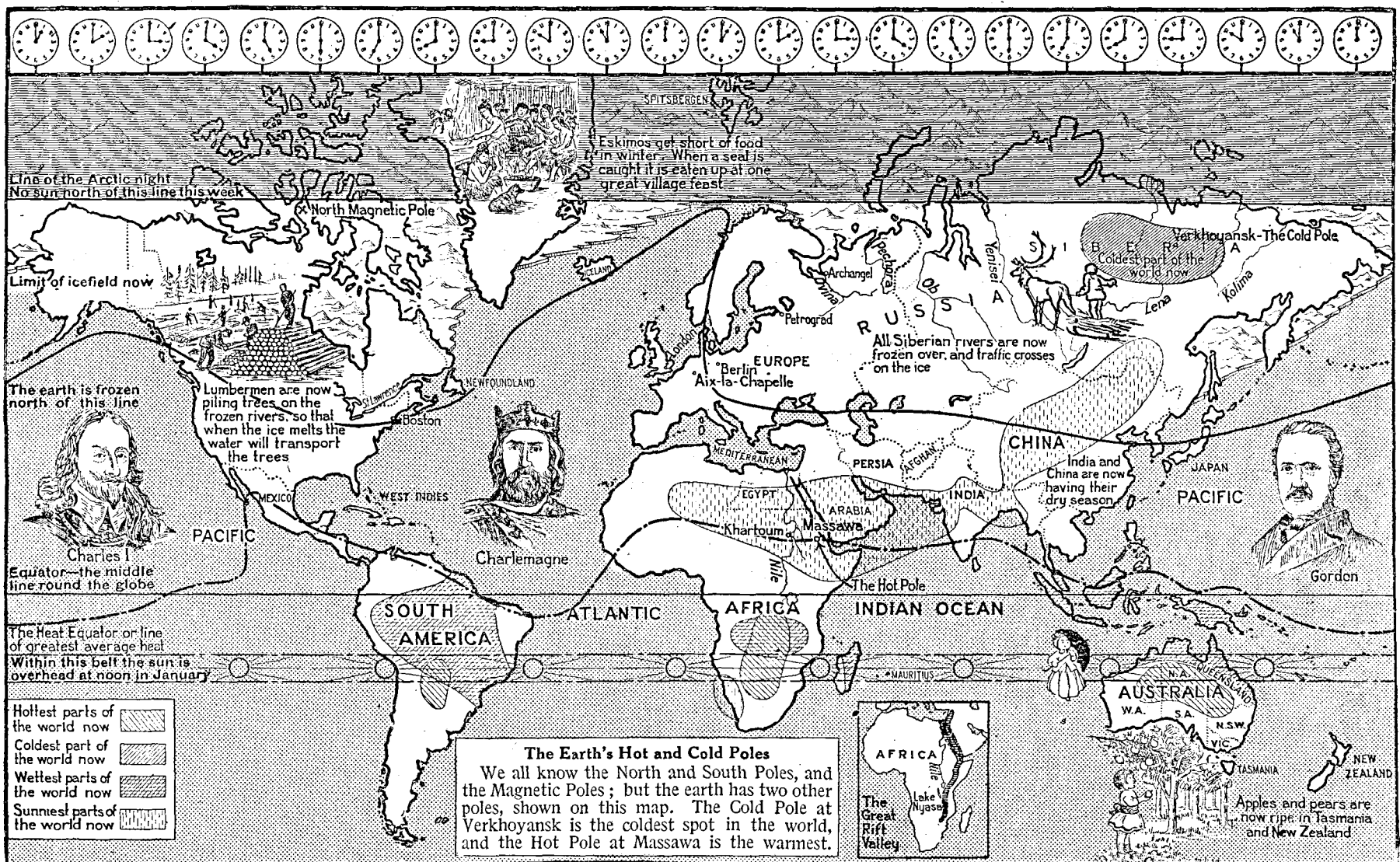
It came, not as a sudden, frightful crack. There were two parallel fissures, and between those two fissures a great ridge of land remained. This ridge would crack and split and narrow, and

finally it all collapsed, fell in, and formed the Great Rift Valley, forcing up lava and creating volcanoes; at the same time sculpturing the sites of seas and rivers.

Disaster That Proved a Blessing

The great valley has sunk, but in its crust we find remains of animals exactly like those of animals which existed on what are now highlands flanking the valley. How deep was the fall? We do not know, but Lake Tanganyika is, at its surface, 10,000 feet lower than the mountains which surround it. The Great Rift Valley was the product of one of earth's most tremendous catastrophes.

Yet it has proved a great blessing, giving us seas open for navigation to all the world's ships, lakes which are as important inland as the seas without, and rivers without which life for man and animal would be impossible. Egypt could not exist without the Nile, and old Nile, with its upper and lower reaches, flows smiling in this huge scar which marks one of the great catastrophes of the earth in bygone days.



PICTURE-NEWS AND TIME MAP OF THE WORLD SHOWING THE HOT AND COLD POLES AND THE WETTEST AND DRIEST AREAS

CITY'S FRONT-DOOR KEY A Little London Mystery

The front-door key of the Mansion House, the official home of the Lord Mayor of London, has been missing since last summer, and the mystery of its disappearance has now been solved.

It was taken out of the door by a harmless American sailor, who thought the key would be an interesting souvenir of an entertainment he went to at the Mansion House!

He took the key with him across the Atlantic, but it has been discovered and sent home again, so that the City is locked up again, all safe and well.

AN EMPIRE BUILDER First Commonwealth Premier

All who follow the combined geography and history of the world should know of the death of Sir Edmund Barton, the first Prime Minister of the Australian Commonwealth.

Sir Edmund, who belonged to New South Wales by birth and residence, was leader of the movement for combining the Australian Colonies into a Federal State, and he it was who shaped the Commonwealth's constitution.

By profession he was a lawyer. In his public capacity gracefully eloquent, a witty and attractive figure, he won his way, by right of his ability, to be the first citizen of united Australia.

SHIP THAT WENT WRONG Captain's Amazing Voyage

The story is told of a man who asked the way to a certain town.

"If you go on as you are going now," was the reply, "it will be about 25,000 miles, but if you turn right round, it is about two miles." Something like this has now happened in real life.

A ship left Melbourne for Bunbury, in West Australia, about 1000 miles away. A great gale came on, which drove it out of its course, and the captain decided to sail eastward right round the world instead of facing the hurricane.

This he did, and in 76 days he reached Bunbury. He had travelled 14,500 miles to get to a place only 1000 miles from where he first started!

THE END OF THE WORLD 100 Million Years of History

There has been a great deal of foolish talk lately about the end of the world.

Most of the planets have been pulling the earth in the same direction, and a professor thought this would result in many catastrophes. He did not, however, say that the world was coming to an end.

As a matter of fact, there is no reason why it should not go on for another hundred million years. The ways in which the world might come to an end are set forth in a graphic illustrated article in My Magazine for February, which can be bought at all bookstalls.

CHILDREN'S NEWSPAPER

JANUARY 24 1920

The Great Adventure

OUR great explorer Shackleton is home from his great adventure, telling his wonderful tale in London every day. What is there to compare with it?

One thing there is, that Great Adventure everyone must take, that journey that begins on this fair earth and leads to Heaven.

Out on this Great Adventure another man has gone. He was Twells Brex. That queer name was all that most of us knew of him, except that he wrote jolly little articles in the Daily Mail. But a few months ago the doctor told Twells Brex that he must die.

He was a young man full of life; he had a wife and a boy; and there is something for tears in the thought that his body was doomed by an enemy within it. But they could not break his mind. He lay in bed with the rush of London life going on all round him, and he made himself a great explorer.

For was he not about to wake up from the dream of Life? Was he not to see for himself the wonder that no book can tell? Was the time not coming when he would follow in the steps of those million men who went out fit and strong in a blaze of glory not very long ago? He would see the heroes of Gallipoli and meet the men of Mons; all those immortals who won our liberties by land and sea he was to join. And then there would be Joan of Arc, and Cromwell, and Shakespeare, and all those wondrous folk that you and I can only read about.

Where in all the history of adventure is anything like that?

So Twells Brex thought it out; but as he lay thinking, he would think of his wife and his child, and be sad. He would see his friends and laugh with them, and talk of the way he was to go. He would pick up his telephone and talk an article through to his paper; and one day he wrote the last chapter of all, and called it Before Sunset.

And what do you think he put in it? He said that he would think his life well ended if he could leave a message for us all that would make us not afraid when our time came; for the thing that we call Death is but the Sunset Gate from pain, and why should we not meet it without fear? We need not be afraid of God, for, if even a man can say that "to understand all is to forgive all," how forgiving God must be!

A day or two went by, and then in two columns of his paper were two things side by side. One was Before Sunset, and the other was the news that Twells Brex had gone into the universe.

So brave men pass through great adventures; and through the gate they meet the Friend who loves us all.

A. M.



THE EDITOR'S TABLE

Fleetway House, Farringdon Street, London
above the hidden waters of the ancient River
Fleet, the cradle of the journalism of the world



The Great Anonymous

ONE more man has joined the Great Anonymous, the long line of heroes who do great things from day to day and pass on, unknown and unthanked, wanting nothing but the joy of doing good.

This Unknown was out fishing in the Thames when a little boy fell into the river in trying to rescue his cap. The floods were rising, and the river was running fast, but the angler jumped in, fully dressed, brought out the boy, dropped him into a house close by, and went off.

Who he is, or where he is, nobody knows but he, but such things are written in letters of gold in the Recording Angel's book.

Out of Date

THE 1912 Club has been listening to a lecture on "The Glory of Napoleon." Some people will see glory in anything, but a 1912 Club is bound to be behind the times.

Who Wrote These Words?

WE quoted the other day those beautiful words beginning "I shall pass through this world but once," and we attributed them to Henry Drummond. We thank those nine correspondents who have pointed out that the passage was written by nine other authors. It is said to be Emerson's and Addison's and Carlyle's and Sir Rowland Hill's; it is said to come from America and from China; it is said to have been written by Marcus Aurelius, the Roman Emperor; it is said to be old and new.

The truth is that nobody seems to know who first wrote these lovely words, but one thing equally true is that no man has ever written anything who would not have been glad to have written them. We give them once more, for all our sakes:

I shall pass through this world but once. Any good thing, therefore, that I can do, or any kindness that I can show to any human being, let me do it now. Let me not defer it or neglect it, for I shall not pass this way again.

Hard

ABOVE all things an examiner must be just. The Children's Newspaper had to decide some very hard cases in awarding its £100 grant, but it is true that none of the pathetic little letters to the Editor were allowed to have any weight where only merit could be counted.

But what would you have done had you been the examiner who came across this little note the other day pinned to an examination paper: "Please do not become impatient with my writing; my right arm and my left leg are in France."

It is hard to be an examiner at any time; it is very hard sometimes.

Bless Him!

WE like that mother's son who has just gone back to work in the mine.

He had been badly kicked by the horse he drives down in the darkness of the earth; he had been at home with terrible injuries; and at last he was ready to start again. He went back to the same mine, back to the same stall, back to his old post; and what do you think he took with him?

A pound of apples for the pony!

Not the Stuff to Give Them

TWO men have set out to fly to Australia with a bottle of whisky, a grown-up paper tells us. We prophesy that they will not get there; these great things are done without whisky.

Tip-Cat

AN Irish paper urges us to "take the Russian bull by the horns. The useless expedient of putting salt on its tail must be dropped." Can it be that this Russian animal is a bullfinch?

A WEDDING favour: the marriage tie.

IN the really modern novel, says Mr. W. L. George, there is no such thing as a plot. Yet, judging by the size of their publics, most novelists are small-holders.

A VICAR who can find no place to live in complains that he is tired of house-hunting. Why not try steeple-chasing?

EVEN Paderewski cannot save Poland with pianofortes.

FOR the handyman: A coat of arms.

A CORRESPONDENT suggests that, with wood so scarce, it might be well to leave the Kaiser alone this winter.

THE chairman of Coats's declares that "the charge of profiteering is groundless." It is certainly very much in the air.

THE Old Woman who lived in a Shoe must have been pretty well-to-do.

SOME think Sir Eric Geddes ought to take a rest. "I receive complaints regularly," he admits. If he gets many more he will be incurable.

Saving the Minutes

WE have half a million minutes every year, and all success in life comes from using them well.

That is a splendid idea being carried out in a big works in the North of England, where a weekly prize is given for the best letter in which a workman tells how he saved a minute in his work.

No man can say how much good would come to the world if every workman saved a minute every hour.



PETER PUCK
WANTS TO KNOW
If the house dole
will make builders
dole-full?

A Dying Man and His Spider

Mr. Twells Brex, who is referred to in the editor's article on this page, wrote this story of a spider as he lay dying.

INSIDE the silk shade of the electric pendant above my head lives a spider. The spider has become a companion to an invalid. In the dreamy indolence of hours when drugs deaden pain I often lie watching the spider. He is nearly always busy—hammock-knitting, tight-rope spinning, engineering. Dusters and feather mops smash his scheme of things. But he valiantly clings to his home.

On Saturday afternoon the spider had his worst shaking. The electric bulb needed renewal, and someone twisted the silk shade awry and dislodged the spider, who fell upon me, but he had spun a life-line as he fell, and immediately he swarmed up to his home again.

An hour later, when two visitors sat by my bed, we were puzzled by new behaviour of the spider. A delicate and almost transparently beautiful little athlete, he lowered himself on his life-line until he was level with my face. He then swarmed up to the pendant again.

A Little Wisp of Wool

He repeated this performance half a dozen times. Then he descended again, halted once more, made up his mind, finished the journey, and alighted under my neck upon a woollen waistcoat that I wear when propped up in bed.

Time after time the spider travelled up and down, alighting for a few moments each time. Then the puzzled onlookers discovered what he was doing. At each upward journey he took with him a little wisp of wool for the making of his winter nest.

One of the great naturalists has written that the brain of the spider surpasses the brain of the ant. Think of the brain of that tiny lodger of the light shade! When he first fell upon the woollen waistcoat he must have realised, "Here's gorgeous building material." Cool nerve as well as brain the spider obviously possesses to be able to take observations during a domestic earthquake!

At three o'clock on Sunday morning, awakened by pain, I switched on the light. The spider awoke, too, and showed himself an opportunist. He dropped down at once for more wool!

A Prayer for Us All

KEEP me from looking with incurious eyes

Upon the marvel of Thy glorious skies;

Let it not be, O Maker of the world,

That like a stone my spirit should be hurled

Round the red sun and through the stars that sweep

Thy silent, all-unfathomable deep; But let my spirit like an angel thrill

With music to each gesture of Thy will,

Singing its joy in everything I bless

With reverent wonder or with love's caress,

Making Thy praises of my own delight,

My daily happiness Thy sovran right:

So let me live, contented by Thy grace,

Yet longing to behold Thee face to face.

HAROLD BEGBIE

BILL THE LIZARD TALKS

The Tyranny of Little Girls AND THE HARD LOT OF THEIR BABY BROTHERS

By Our Correspondent in Wonderland

I fell in with Bill the Lizard as he was returning from the Courts of Justice. "What are you doing?" I cried. "Having a trying time," he replied. "How's that?" "As usual, I have been acting," he said, "as Foreman of the Jury." "And who have you been trying?" "As usual, a little girl." "What was the charge against her?" "She was charged with being a trial." "I don't understand." "She was charged," Bill repeated, "with being a trial to her baby brother. That was the trial. And she was a trial. And I have been having a trying time." He sat down, sighed peevishly, and asked me if I believed in the classic poem about girls. I said, "Which poem?" and he repeated the following verses in a very mournful tone:

WHAT are little girls made of?
What are little girls made of?
Ah, what indeed!
Rhubarb and rice
And coconut ice,
Diamonds and dice
And wicked advice,
Spiders and mice
And nothing that's nice,
That's what little girls are made of!
"That isn't true," I said stoutly.
"Ah," sighed he, "you wait till you spend your days as a Foreman of the Jury! You won't express hasty and confident opinions then. You see," he continued, dropping his voice to the tone of tragedy, "I have done nothing for the last hundred years or so but try little girls, and I am bound to say, though it goes against my kindly nature to admit it, that the weight of evidence is dead against them."

I was about to protest when he addressed to me the following questions: "Have you ever seen a little girl taking out her baby brother for his morning toddle? Have you ever observed her attitude towards him? Have you ever noticed how she assumes a haughty expression of countenance when she looks at him, raises her voice when she corrects him, and rushes at him with a perfect pounce of ferocity when he wanders off to the window of a sweet-shop or in the direction of an oncoming motor-bus? That is the habitual state of mind of all little girls towards their baby brothers. They are tyrants."

"But what we have to do," I objected, "even if we admit the truth of this revolting accusation, is to discover the motive of the tyranny."

"The motive," he replied, "is to establish an iron despotism over our unfortunate sex."

"Well, wait a minute," I interrupted. "You mentioned a motor omnibus."

"Exactly," he cut in. "Why do all baby brothers try to fling themselves under the wheels of every vehicle that passes them by, from a pantechnicon to a perambulator? It is a natural instinct. They are trying to escape from the tyranny of their sisters."

"And yet," I said, "those little baby brothers grow up."

"Some," said Bill.

"And of their own will marry the sisters of other little baby brothers."

"That's my point," said Bill. "A few survive the agonies of their child-

NEWS FROM EVERYWHERE

Argentina's warships are being used to carry food to starving Europe.

India is not only the largest sugar-producing country in the world, but is also the largest sugar consumer.

Its Weight in Gold

An Essex naturalist sold a very dark woolly bear caterpillar for the record price of £14. It was literally worth its weight in gold.

Burning Corn for Coal

At Omaha, in America, the farmers, owing to transport difficulties, cannot get coal, and are burning corn to keep themselves warm. Meanwhile half Europe is starving.

A Salary Spent in Fuel

A government official of Vienna told an English correspondent that he received a salary of ten pounds a week, and spent it all on fuel to keep himself and his family from freezing.

In Petrograd 1200 wooden houses have been pulled down to be used as fuel.

Goods which came from Portugal took longer to travel to their destination in England than to come from abroad.

Great Army in London

In the last four years nearly three and a half million soldiers slept in Y.M.C.A. huts and hostels in London.

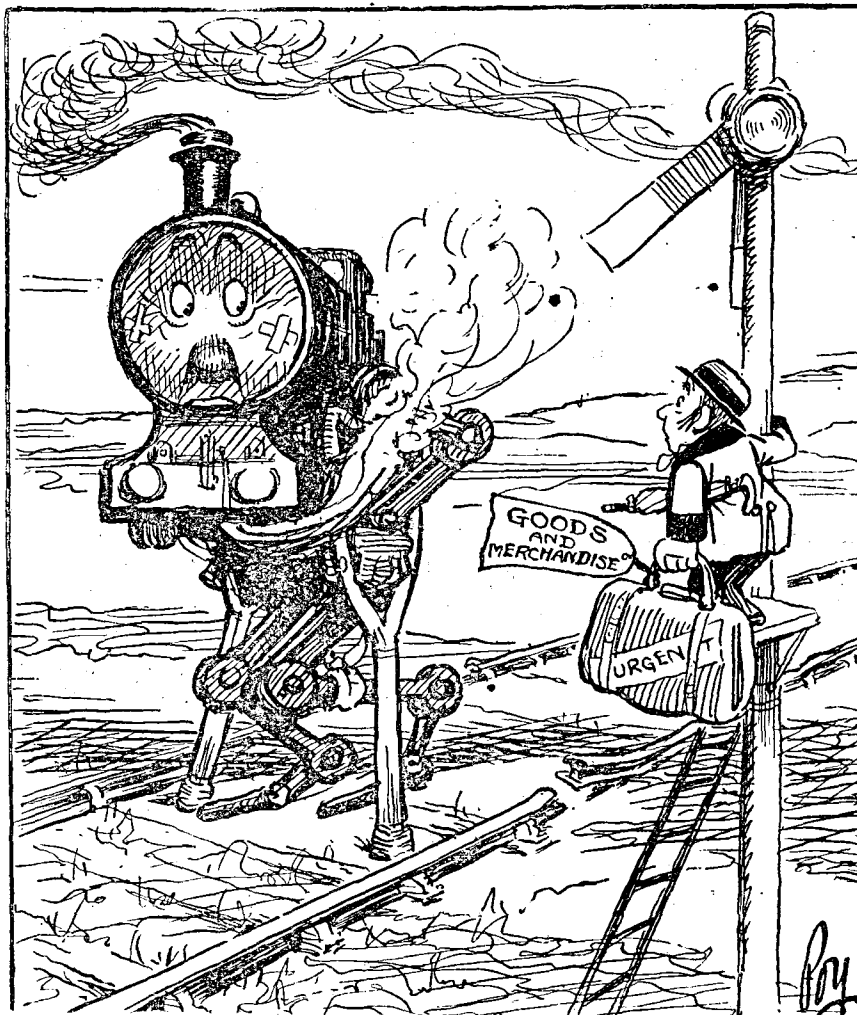
Wanted—Safety Lamps for Miners

There is a great shortage of safety lamps, and as manufacturers cannot make them fast enough, it is feared that some collieries will have to close down.

New Kind of Waggon

Bradford has a new kind of delivery waggon for goods. An arm connects it with the overhead wires of the electric tramcars, although it does not run on the rails. When it has to traverse streets that have no wires, it runs on power from its own storage battery.

NOT THE MAN HE WAS



The muddle on the railways is worse and worse

Our Lame Trans-Porter: "I'd like to carry your bag, sir, but I'm not the man I was"

hood, but these have been so broken-in, broken-up, and broken-down, that they go as lambs to the slaughter-house."

He then turned to me and said:

"The facts have been suppressed. There's a secret League of Silence among women on the subject—the only Silence and the only Secret they ever keep—but the facts are as stated. All little girls are in conspiracy against all little boys, and the doom is marriage."

"Bill," said I, "as a man devoted to his wife, and as a father devoted to his children, let me assure you that there is a fallacy in your logic."

Bill shook his head.

"You're only one of millions of victims," he said, with melancholy. "You're only one of millions who think you are the heads of your households. Poor fellow, I'm sorry for you; although perhaps it is better to be deluded than to attempt a rebellion foredoomed to failure. Continue, then, my poor friend, in your vain and comical conceit, and never, as you value your so-called happiness, listen to this poem with more than one sex. It is called The Doormat."

He then recited the verses:

SAID the Doormat to the Husband
As the poor man hurried out:

"Good-morning, Brother Duffer,
You and I were born to suffer,
Pay the landlord's rent, and shout!"

SAID the Doormat to the Husband
As the victim crawled within:

"Good-morning, Brother Sinner,
They have eaten all the dinner,
Pay the butcher's bill and grin!"

"Bill," said I, getting up, "you are the most depressing lizard I ever encountered. I strongly advise you to look for a better 'ole."

"Wherever I go," replied old Bill, "I see little girls tyrannising over little boys, pretending all the time to be angels; and so for me there can never be a better 'ole this side of a jury-box."

"Is it the same with lizards as it is with us?" I asked him.

"Not quite so bad," he answered, lashing his tail. "No, not quite so bad; but, still, we gentlemen lizards never feel ourselves entirely safe. That's why we sleep with at least one eye open."

LOCKED IN THE GRIP OF ICE

Ships, Islands, and People Hemmed In

FROZEN GULF OF ST. LAWRENCE

We mentioned a week or two ago the relief of the ice-bound residents on Belle Isle, who hold the line of shortest communication between the British Islands and Canada. They are quite safe, but the frosts have now shut out the world from other islands in the Gulf of St. Lawrence.

Anticosti, a big stretch of land, though narrow, with less than 300 inhabitants, has been hemmed round with thick ice; and so have the Magdalen Islands in the middle of the Gulf, with their population of about 6000.

The ice has formed so thickly on the surface of the St. Lawrence this year that ordinary whalers cannot charge it and crack it, as the custom is with ice up to about one foot thick. So the people on these islands, who are fishermen, are hard beset for food, and ice-breakers, vessels with a ram built specially strong for the work, are trying to crash a way through the fifty miles of ice that lie between the prisoners and the Canadian mainland.

No doubt they will get through, but the waiting thousands may have a hungry time on short rations till they receive new stores of food.

An effort has been made this year to prolong the season for winter navigation on the St. Lawrence, but the experiment has been a disastrous failure. Six government freighters are icebound at Quebec, where they will probably be held up until spring.

One of these vessels was drifting helplessly in the Gulf for weeks while an ice-breaker tried to get in touch with her; and another vessel, caught in an ice current, has been flung on to the northern shore, where she will probably be wrecked by the winter storms.

SLIPS IN BOOKS

Sir Walter Scott's Mistake SITTING ON CHAIRS THAT WERE NOT THERE

The Minister of Education has been telling us of some mistakes that he has come across in books, and some are very interesting.

One of them is a great mistake that runs through *Ivanhoe*, where the Normans and Saxons are represented as two distinct races. The fact is that at the time with which the story deals marriage between the two races had gone so far that Norman could hardly be told from Saxon; but Sir Walter Scott did not realise this until the story was set up in type, and so the famous novel appears with this blunder right through it.

Another mistake was made by Mrs. Humphry Ward, who in one of her books made two people take chairs in Kensington Gardens in the first week in October, though all chairs are removed from the gardens on September 30.

Charles Kingsley makes John Brumblcombe recite a prayer from the Prayer-book long before the time the prayer was put in; the poet Pope makes a weasel eat corn, which a weasel never does; and in *Don Quixote* the merry Cervantes makes one of his parties at a tavern eat two suppers in one night!

The life of a novelist is full of trouble, but such little things do not seem to matter greatly. We would rather have the stories with all their mistakes than have the dull facts without the stories.

THE GREAT STUPIDS THOSE WHO STAND IN THE WORLD'S WAY

The Inventor's Hard Fight for
Justice

NATION'S MEANNESS TO A MAN WHO SAVED £100,000,000

The history of invention is strewn thick with the ingratitude and stupidity of people who could not recognise an inventor when they saw him, and who made themselves busy putting obstacles in his way.

Probably half the best inventions have made progress slowly against the resistance of the very men who should have welcomed them at once.

It was so all through the period when steam was coming into use, and when machinery was being invented to work by steam. Just the same dull obstruction and neglect of keen-witted men by slow-minded officials have been seen over and over again during the war.

It seems now that Lieutenant Dennis Burney, who invented the paravane—which saved 765,000 tons of shipping during the war, valued at £100,000,000, to say nothing of hundreds of lives—has not received a farthing of reward for the invention, though at one period he was promised the benefit of patents for all parts of the world.

A usual royalty of ten per cent. on the 17,000 paravanes manufactured and used would have given him a fortune of £100,000. A book has been written called "The Paravane Adventure," showing how he was worried and baffled, and that he has had no reward except the poor honour of a C.M.G. Happily, in these days of print, the world has a fair chance of knowing who its clever men really are, and of guessing who the stupid men are who obstruct them; and it will award its judgment in history. But what poor comfort that is for the poor inventor!

A LIBRARY BURNED

Making the World Poorer A GREAT WRITER & HIS BOOKS

The late Sir Donald Mackenzie Wallace, for many years the foreign editor of the Times, and the writer of the best book ever written on Russia, left the valuable books he had collected to the London Library, thereby putting them, as he thought, to the best possible use. But, unhappily, they have all been burned in the building where they were stored, and so lost to the world.

The way in which Sir Donald studied Russia shows his manner of working. He learned the Russian language and the life of the people as a Russian would. First he lived in a country district and talked in the simple words of the peasants; then he lived for years in a moderate-sized town, widening his knowledge and language; and finally he went to Petrograd, and became familiar with the life of the capital and society.

In this way he grew up into a full knowledge of everything Russian, as a Russian might who rose from the lowest to the higher ranks, and out of that knowledge he wrote his book on Russia.

The destruction of such a library leaves the whole world poorer, as all destruction does. Destruction of useful things is utter loss. To make things is difficult and costly, to destroy is easy. An infant in arms can break things which only great cleverness can replace.

And the tragedy is that some of the most valuable books in the world have been destroyed to light fires. Carelessness and ignorance and mischief and accident are always busy somewhere doing harm, which is easy, while only toil and brain work can replace the loss.

BOY ARCHITECT Designs His Father's House

WILL HE GET THE FIRST GOVERNMENT BONUS?

The Government has found that 800,000 new houses are needed in the United Kingdom, and plans are being drawn up for building 100,000 this year. To encourage building to begin while prices are so high, the Government is to make a grant of £150 towards every new house with five rooms, and it is thought possible that the first grant may be won by a Kentish schoolboy.

Plans for a private house which were drawn by a 14-year-old boy have been approved by the Tunbridge Wells authority, and the boy's father, Mr. W. F. Gibbon, a letter-sorter at the Post Office, hopes to be the first to draw a bonus of £150 which the Government is offering towards the cost of each new house built under the conditions the Government has laid down.

William Francis Gibbon, the boy who, we hope, will win this race for the first building bonus, sends us the following interesting account of why and how he came to draw the approved plans.

By the Boy Architect

"It came about in a very natural way," he says. "When we came to Tunbridge Wells from London we were unable to get a house, so we took furnished apartments.

"As the delay lengthened, and there seemed to be no hope of getting suitably settled, Dad bought a plot of building land on the outskirts of the town.

"Then Mother and I began to think what kind of house we would like to live in. First we determined it must be detached; and then we thought of the conveniences and inconveniences of the houses we had been in. 'We should like this, and we must avoid that,' we said, until it became fascinating, and my fingers itched to make plans.

"I showed some of these plans to a lady, who kindly lent me a plan from which I learned a good deal. Another friend also gave me some valuable hints. The stairs were my chief difficulty. At last I had a plan sufficiently good to show to a professional architect and a practical builder.

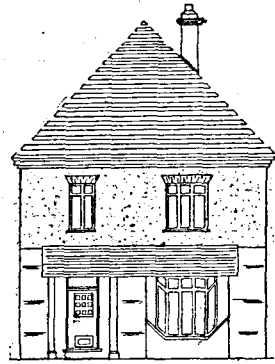
"It had now become my ambition to draw plans that would finally be passed by the authorities, and this, I am glad to say, I successfully accomplished.

"All being well, the building will start early in the New Year. We are eagerly anticipating the completion of the house, for we think it will be quite the most comfortable and convenient house of its size that could be arranged, and one of the most healthy."

WE are sure all our readers will wish that the house so carefully planned by William Francis Gibbon will fulfil all his hopes, that his father will get the bonus, and that our enterprising reader will plan many more approved houses.

A NEW ZEALAND REFERENDUM

Nearly half the people of New Zealand have voted for the prohibition of the Drink traffic, but it is to continue because there were 3000 votes short. Three thousand more voters would have made New Zealand as "dry" as the United States.



Plan showing front view

COUNTRY STORIES Things Our Readers Tell Us

ODD COMPANY IN AN ABBEY

As the Children's Newspaper is above all things a friendly paper, we are glad to give interesting facts or observations our friendly readers may send.

Here is a list of curious things that might have been found, a courteous correspondent tells us, at the fine historic Sherborne Abbey, in Dorsetshire, a few years ago.

- A Lyon for a vicar.
- A Parson for a churchwarden.
- A King for a verger.
- A Pope for an organ-blower.
- A Bishop for a bellringer.
- A Bull to sing in the choir.

A WOOD PIGEON'S LUNCH

A Derbyshire Reader tells us:

A wood pigeon has just been shot near Belper which had in its crop 39 large acorns. It was no larger than other pigeons, and was in good condition.

THE DRAGON-FLY THAT HAD NO FEAR

Writing from Reading a reader says:

While I was botanising with a friend some weeks ago we sat on a sunny bank to eat our sandwiches, when a big dragon-fly chose my friend's knee as a suitable place to eat his dinner.

He stayed there five or six minutes, eating the body of a fly, and allowed us to train our magnifying glasses on him, and watch closely what he did.

He gave a very good show, and enabled us to understand what a dreadful armour-plated monster he must appear to a little fly.

GREENTREES

A reader at Harrow sends us a note of this pleasant verse on the tombstone of Isaac Greentrees in the churchyard there. He lived two hundred years ago. Beneath these green trees, rising to the skies, The planter of them, Isaac Greentrees, lies. The day shall come when these green trees shall fall, And Isaac Greentrees rise above them all.

SUBMARINE WORKSHOP Crawling Down into the Sea STRANGE CRAFT FOR WORKING BELOW THE WAVES

A new submarine vessel has been built which enables men to work under the water, on the salvage of sunken ships or on constructional work. It is a combination of a submarine and a diving bell, attached to a surface vessel.

The surface vessel is connected with the submarine by a pipe, over four feet in diameter and 75 feet long, through which men can crawl, or down which they can slip when the submarine is below the surface. When they have got into the submarine water-tight doors are closed, and the under-water vessel is thus quite self-contained, and can be sunk or submerged in the usual way.

Compressed air is then pumped into the submarine, and a trap-door in the bottom can be opened, the air pressure preventing the sea from rushing in. Through this opening workmen can use various kinds of tools, effect salvage operations, or do any of the work that is done in dock or pier construction under water by means of diving bells.

The submarine workshop is connected by telephone with the bridge of the surface vessel, and workers inside can ask to be raised or lowered, or taken to different parts of the sunken vessel they are working on.

This remarkable combination of vessels, with quarters for the crew, air-compressing plant, and generators for supplying electric light to the workers beneath the water, represents the latest phase of the evolution of the diving bell of John Smeaton, which he devised for laying the foundations of a pier at Ramsgate late in the eighteenth century.

WATER TO THE RESCUE BRIGHT SPOT IN THE FUEL PROBLEM

How the Rivers Will Help to
Solve It

MILLIONS OF NEW HORSE-POWER

Most countries have enormous supplies of power in the form of water, which until late years was allowed to run to waste.

Those countries which had to pay very high prices for coal, or where fuel was scarce, were the first to harness their waterfalls and swift rivers; and as the shortage of fuel became more widespread other countries joined in the new work of utilising these vast sources of energy.

Germany today utilises 43 per cent. of her available water power, Switzerland over 25 per cent., and the United States about the same.

In Great Britain only about eight per cent. of the water power has been used so far, but several new schemes are likely to be carried out which would produce power equal to that obtained from two million tons of coal a year.

Power in the Highlands

When we remember that only seven million tons of coal are used annually for our steam power stations for electricity, we may form some idea of the saving in the coal consumption.

Harnessing the water power to drive turbines, which in turn drive dynamos or generators of electric current, must be done where the water is, and this is not always most conveniently situated for supplying existing needs.

If nine Highland water schemes now planned are carried out it will probably lead to the birth of saw-mills, meal mills, laundries, and dye works, factories for manufacturing yarn and woollens, chemical works, and so on, in the neighbourhood, and electric power may also be transmitted to big industrial centres such as Glasgow, Aberdeen, and Dundee, which are not too far away to render this impossible.

Spinning Out the Coal

The "horse-power" derived from the water in these Highland centres would be 180,000, and this would save nearly two million tons of coal a year. What, then, will be saved by France, which in 1921 will be deriving 1,600,000 horse-power from her swift rivers? In the United States there is enough water power to equal twice the present amount of coal used in producing steam power.

Norway gets a million horse-power every year from her water, and millions of horse-power are generated yearly now in Canada and New Zealand.

Here, then, is one bright spot in the fuel outlook. We in this country are about the most backward nation in turning water power into electricity, but we are moving in the matter at last, and other big countries are working at high pressure to make full use of Nature's most obvious substitute for coal.

The modern water-wheel—the turbine—and the progress of electrical engineering have made it possible to spin coal out by thousands of millions of tons.

THE TWO SHAKESPEARES

William Shakespeare gave the world the noblest treasure ever bequeathed to it by a single man, and died worth £1000 in his day, or £10,000 in ours.

Another William Shakespeare has just died, the owner of a farm at Yateley, in Hampshire, with a house in London, and he left behind £120,000.

FOOTPRINTS IN THE SNOW

Tracking Birds & Animals in Winter

FIELDS DOTTED WITH YOUNG LAMBS

By Our Country Correspondent

After a fall of snow on any January night, it is interesting to look out for the trails or footprints of different creatures. The identification of them is quite an art, and provides not only good recreation, but an excellent exercise in nature study and observation. It is also interesting to follow the tracks, and see where they lead to; and in this way we may learn something of the habits of the creatures themselves.

Tell-tale Footprints

There is a distinct difference, for instance, between the footprints of a bird that hops and one that walks. Where rooks live we shall always find their tracks, and they are easily distinguished. The impression of the long hind claw betrays a perching bird, and of all the perching birds the rook alone walks as heavily as the footprints indicate.

The starling is always lively and cheerful, even in these cold times, and seems to enjoy life thoroughly. A feature of the countryside in the winter months is, of course, the congregating of the starlings in large flocks, and they are fond of making aerial excursions in mass formation. It is, in fact, quite a sight to see a flock rise suddenly from a field where they were hunting for food. Little comes amiss to them—insects, worms, slugs, berries, seeds, and corn.

Just now they are beginning to resort to buildings, as a preliminary to looking round for nesting sites later on.

Buzzard Like an Eagle

The common and rough-legged buzzards are much rarer than they used to be, the common buzzard being a resident, and the other an irregular migrant.

To see the common buzzard soaring in stately fashion over a wide moorland with widely-expanded wings is, indeed, a fine sight. The bird might well be mistaken for an eagle, though it is, really, much smaller than an eagle.

Unfortunately, when it is about, there is generally some foolish man with a gun who thinks he is doing something praiseworthy by bringing it down, imagining he has shot an eagle. It is, however, this kind of false prowess that is making the buzzard rarer and rarer in these islands of ours.

Lambs at Play

A common sight in the country now is the young lambs sporting in the fields, and very pretty they are. Everywhere in the south the green fields are dotted with them, and as the days pass it will be the case farther and farther north.

An examination of the fruit trees in the orchard will often reveal the eggs of the lackey moth, laid in bands round twigs, and varnished to protect them. Now is the time to look out for them, when trees are bare of leaves.

The vapourer moth's eggs, too, may also be found, mixed up with fragments of the old cocoons, looking like cobwebs. They are laid in crevices of tree trunks and walls, and are detached only with difficulty.

C. R.

A SILENT ALARM-CLOCK

An alarm-clock which awakes a sleeper without ringing a bell has been made by an enterprising electrical engineer. It is set overnight so that at a given time it switches on a powerful electric lamp, the rays concentrating so as to fall on the pillow of the bed. The sun's rays falling on a sleeper always wake him, and the electric-light alarm answers the same purpose.

MARY AND HER LITTLE LAMB



The fields of England are now dotted with lambs, which may be seen playing with their mothers. These pretty creatures are great favourites with the farmer's children.

HOW TO GROW RICH In a Month

Most people would like to be rich, and a reader from Leeds reminds us of a very simple way.

All you have to do is to invest a penny one day, double it the next, double it again on the third day, and go on doing that for a month.

At the end of the month you will be so rich that you need never work again, and if you like to do it for another month you will be so rich that all the kings in Europe could not afford to buy you up.

CHEMIST'S TRIUMPH Why the Melons are Fresh

Water-melons often have to travel thousands of miles before they are eaten, yet we always get them fresh. This is due to a triumph of the chemist. A chemical paste is applied to the stem ends of the melons, and prevents decay.

So often did melons decay that whole trainloads of them would be lost, and this year one of the big American railways has refused to carry melons unless treated with the paste. It is made of copper sulphate, alum, and rye flour.

NATURAL FACTS OF THE DAY



The universe moves to order like a clock. Sunrise and sunset, moonrise and moonset, high tide at London Bridge, ever they come and ever they go, while nations rise and fall.

Here is Nature's time-table next week, given for London from January 25.

Black figures indicate next day.

Time-table of Sun, Moon, and Sea

	Sunday	Tuesday	Friday
Sunrise . .	7.52 a.m.	7.49 a.m.	7.45 a.m.
Sunset . .	4.33 p.m.	4.37 p.m.	4.42 p.m.
Moonrise . .	9.11 a.m.	9.59 a.m.	11.48 a.m.
Moonset . .	9.55 p.m.	12.23 a.m.	4.0 a.m.
High Tide . .	4.44 p.m.	5.56 p.m.	8.38 p.m.

Next
Week's
Moon



NEXT WEEK IN THE GARDEN

Protect early-sown peas from attacks of birds and slugs; when the soil is tolerably dry some earth should be drawn to plants a little above the ground, and they should be staked rather closely. Make a sowing of Long Pod and Broad Windsor beans in rows two or three feet apart.

Cardoons which are full grown may be taken up with bulbs on a dry day, and planted among sand in a shed.

Remove decaying leaves frequently.

ICI ON PARLE FRANÇAIS



La vallée Une abeille La griffe

La rivière coule dans la vallée
L'abeille fait le miel et la cire
L'aigle saisit sa proie dans ses griffes

LE LION EUT PEUR

Un Français, voyageant en Afrique, aperçut un lion qui s'avancait furtivement vers une femme arabe pour la dévorer. Comme il était armé, il fit signe à la femme de s'éloigner, afin qu'il pût tuer l'animal. Mais, à son grand étonnement, la femme se releva furieuse, marcha résolument vers le lion, et l'apostropha ainsi :

" Ah, lâche ! Tu viens attaquer une femme sans défense. Tu crois me faire peur, mais je te connais ! Va donc là-bas attaquer mon mari, qui est armé. Va donc, te dis-je ! Tu n'oses pas, misérable ! chacal ! hyène ! Tu portes une peau de lion, mais tu n'es pas un lion ! " Et le lion s'enfuit, terrifié.

WHY THE FLOODS COME

Too Much Water for the Rivers

PUZZLE OF THE WINDS AND THE RAIN

Many parts of Europe are at this time suffering from severe floods such as they have not experienced for many years. The Seine Valley is inundated in many parts, including Paris, and the Rhine, which is always a swift-flowing river, has swept over its banks and done immense damage in districts that can ill afford to suffer.

What is it that has suddenly caused these unusual floods ? Well, in one sense we know, but in another sense we do not know at all.

The immediate cause has been the exceptionally heavy rains. Pouring on the area that feeds the rivers, the rain has sunk through the ground, run to lower levels, gathered in underground streams, emerged as springs and brooks, and finally found its way to the river. In normal times, of course, the river can carry away quite comfortably all the water that comes to it.

Funnel That is Too Small

This year, however, more water has come to the rivers than they can carry, and what has happened is what would happen if the milkman tried to pour a quart of milk quickly into a pint jug. The water has poured over and run about, as the milk would.

But a river is really only a channel for carrying the waters to the sea, and perhaps a better illustration would be provided by the milkman pouring a quart of milk all at once through a funnel, that would carry it into the jug quite well if it were poured slowly and regularly. The rush fills the funnel and the liquid pours over all round.

The floods in Europe have occurred simply because the river channels have not been big enough to take all the water that has drained into them. The floods will remain until the rivers, having carried off much of the water that fills their channels now, are able to receive the flood water back.

Cycles of Weather

But while this is an explanation as far as it goes, what has caused the unusually heavy rains this year ? That is a question no one can answer. The science of meteorology, or study of the weather, is still in its infancy. We know that changes of temperature cause winds, that winds carry clouds and rain, that the rainfall and shape of the land affect the temperature.

But why, when the land remains unchanged year after year, and the sun shines much the same day after day, do we not have exactly the same winds and rains every year ?

Men who study these things say that there are cycles of weather which come several times a century, and various causes are suggested to account for these.

Coming and Going of Gases

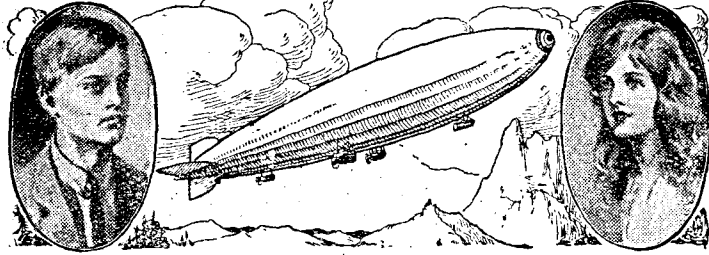
There are in the atmosphere certain rare gases, such as argon and helium, and these are at one time escaping into space, and at other times coming back into our atmosphere from space. Probably this coming and going of gases makes some changes in the air which affect the weather at long intervals.

Then, again, the variations in the energy which the atmosphere receives from the sun probably affect temperature, and so cause unusual changes in the weather ; while sunspots and sun-storms may have a good deal to do with it.

Any change in the temperature of the atmosphere, at any part of the earth, may set up a whole chain of meteorological events which could easily lead to exceptional rains and floods.

One day science will find out all about these things, trace them back to their origin, give warning of when they are to be expected, and possibly help us to combat them effectually.

THE SKY RIDERS



A STIRRING TALE OF ADVENTURE ROUND THE WORLD

Told by T. C. Bridges, Author of "Martin Crusoe"

CHAPTER 48 At Last

THE searchlight's beam remained stationary, and, keeping just out of its glare, the three crossed the fence—or, rather, the line where the fence had been—and reached the garden inside.

Here were rows of sweet corn, or garden maize, standing eight or nine feet high. They slipped behind its shelter and took stock of their surroundings.

"There's only one way in or out, as far as I can see," whispered Cyril.

"The main entrance between the pillars," replied Mr. Trench. "You are right, I believe. The whole of the rest of the front of the building seems to be blank. But there's sure to be an entrance on the side facing the lake."

"These men can't reach that without a boat, and the boat is probably moored alongside the float in the lake," said Cyril. "Anyhow, there's no way for them to go round."

"No, they can't get round without swimming, and I don't fancy they'll be any keener than we to try that sort of thing," responded Mr. Trench. "I tell you what, Cyril, the best thing we can do is to stay where we are until these fellows come out again and get to work on the wire."

"And then make a rush for it?" questioned Cyril.

"Just so. The chances are they won't see us."

"But won't the searchlight man be seeing us?" put in Tim.

"No need for him to do so," said Mr. Trench. "The light is being worked from an opening over the main entrance. We ought to be able to creep in under it."

"I take ye, sorr," said Tim. "But don't be talking any more. Here they come."

As Tim spoke, the two men appeared again, coming out of the main entrance. They were heavily loaded with coils of wire and tools, and both appeared to be in a very annoyed frame of mind.

"I told the boss it was asking for trouble, to plant all this truck inside here," said one.

"Much notice he'd take of what you said, Jonas," sneered the other.

"Much notice he takes of what any of us say," growled Jonas. "I tell you, Mark, I'm getting fed up with Bertram Kent."

"What's the use of talking like that?" retorted the man called Mark. "Even if we wanted, we couldn't leave till he gets ready to go. And you can't say he don't pay well."

"Oh, the money's all right," said Jonas sulkily. "It's only that I'm sick of loafing in this forsaken hole, where there's no one to talk to, and nothing to see but trees and water. I'd give a month's money to walk down Old Kent Road or get inside a picture palace."

Mark gave a harsh laugh. "There's more'n picture palaces to see. Haven't you never been down in the glass room?"

"Ugh!" grunted Jonas. "Once I have, but never again. The things you sees down there is enough to give a chap bad dreams for a month."

"They ain't pretty or nice, and that's a fact," agreed Mark.

Cyril was listening with such interest that he almost forgot the peril of his own position. The glass room! What on earth was the fellow talking about? And what did it all mean? What were the sights which would give a man bad dreams for a month?

Just then Tim nudged him. "They didn't see us, anyway," whispered the Irish boy. "Be watching now. We'll be starting in a minute."

Mr. Trench, however, made no move. He remained where he was, crouching behind the tall stalks of tasselled corn, until the two men had laid their coils of wire down and actually got to work. Then he touched Cyril on the shoulder.

"Now's our chance," he said in a low voice. "Follow me. I needn't tell you to go quietly."

Bent double, he stole away in the direction of the pillared entrance, and soon gained the western end of the front of the building. Then he turned sharp to the right, and, like shadows, the three stole along under the enormously massive wall.

There were no windows or openings of any sort in the tremendous wall. As Cyril passed along he was impressed by the gigantic size of the stones of which it was built. Some of them seemed to be at least twenty feet long.

Cyril's heart was pounding. At last they were almost within reach of Stella. He felt certain that she was held prisoner in this strange old building. Yet, close as they were to her, it was quite impossible to tell whether they could rescue her.

Neither Trench nor he had any idea how many of Kent's men there were inside. There might be a dozen, for all they knew, in which case the chances were that they themselves would be prisoners like Stella before many minutes were over.

Yet he was not conscious of any fear, only of a tingling excitement.

Mr. Trench reached the pillar guarding the left-hand side of the entrance, and came to a stop in its shadow. It was a tremendous affair, fully ten feet through, and seemingly cut out of a single block of stone.

Now came the ticklish part of the business. The searchlight glowed out from an opening exactly over the entrance, and to get inside the three would have to pass right under it.

Mr. Trench put his mouth close to Cyril's ear.

"I will go first," he said; "you follow, then Tim."

Cyril nodded, and next instant his leader had swung around the great pillar and vanished.

CHAPTER 49 Inside the Palace

CYRIL paused a moment. There was no sound. He beckoned to Tim, and followed. Tim came close after, and in a moment they were both inside, and standing beside Mr. Trench, in an immense pillared hall.

The floor was paved with gigantic flags of smooth stone, and the roof was also of stone, but painted with all sorts of strange figures, mostly animals. Rows of vast pillars supported the roof, and the whole of the ancient place was lit by modern electric lamps dangling from the

roof. It was the oddest contrast that Cyril had ever seen.

Mr. Trench stood perfectly still, listening. But there was no voice or movement. The only sound was the low hum of an unseen dynamo.

"All right so far," said Mr. Trench in a whisper. "The next thing is to close the door and make it fast. As you see, our friend has not spared trouble to make a good job of his doors."

It was true. A great pair of folding doors had been set in place. They were quite rough, being made of planks sawn from the felled trees, but they were certainly stout. Also, they were provided with great bolts and a chain.

"Won't the men out there see us closing them?" asked Cyril.

"Possibly. But what does it matter? They won't be able to get in. There is no other entrance on this side. Still, we may as well go about it as quietly as we can."

Cyril nodded, and they pushed the doors to. The hinges seemed well oiled, for they moved quietly enough. And as there was no sound from outside it seemed that the men did not notice what was being done.

"It's meself would like to see ould Kent's face when he finds himself barred out of his own residence," Tim remarked. "Wouldn't we go and shut the other door now, sorr?"

"Not yet. First, we must tackle this man who is running the searchlight. We must handle the men one by one, or we don't know what we may be running our heads into. The question is, how are we to get at him?"

"Up that ladder," replied the quick-witted Tim, pointing to a rough wooden ladder which ran up to an opening in the roof.

Mr. Trench nodded approvingly.

"Yes, that's the way without a doubt. Go quietly. We must take him unawares. We don't want any shooting if we can help it."

He led the way to the ladder. Cyril followed with a queer sense of unreality, feeling that he must be in a dream.

As he crossed the hall he noticed that the floor sloped at quite a steep angle towards the lake. Yet the huge flags had been so perfectly cemented that there was no crack anywhere. The whole building had tilted like one stone.

The opening through which the ladder ran must have meant a lot of hard work to cut, for the upper floor was as solid as the lower. As he put his head up he was aware that this upper storey was nearly dark. There was just one electric bulb, and that over the head of the man who was working the searchlight. As for the searchlight itself, its whole ray was reflected outwards through an arched opening.

Cyril crouched breathless at the top of the ladder. So softly had the three come up that the man had not heard them. He sat, idly watching the pair who were stringing the wire outside.

Mr. Trench signed to the boys to stay where they were, and crept softly forwards. Cyril saw that he had his automatic ready in his hand.

Cyril's eyes were fixed upon the searchlight man. He was not very young and rather stout. He had red hair and a ginger moustache, and was a big, powerful fellow.

Moving with that absolute silence that only a big game hunter or an Indian ever attains, Mr. Trench made a half circle, and came up behind him.

"Hands up!" he said suddenly.

With his hands above his head, the man turned slowly round, and as his eyes rested upon Mr. Trench, they were filled not so much with fright as with amazement.

"Glory!" he said. "If it ain't Mr. Trench!"

Mr. Trench looked equally surprised.

"You, Gregor!" he exclaimed.

"It's Gregor all right, sir. But how you come here beats me."

"I have been here in the valley

for some months," replied the other, "but I confess I did not expect to see you in this rogues' gallery."

"If I'd known what it was, sir, I wouldn't ever have come," was the reply. Then a scared expression crossed his face. "But, see here, sir," he went on, "if the boss comes you're in for it. You don't know what you've run your head into."

"On the contrary, I know very well," replied Mr. Trench coolly. "But tell me one thing. Are you on my side or Kent's?"

"Yours, sir," answered Gregor unhesitatingly. "I'd give a year's pay to be out o' this. Do you reckon you can get us away?"

"I do—with your help. First, is there any other entrance to this place except the one just under us?"

"Not on the land side, sir."

"That's all right. We have bolted the door."

"Then there's more than you, Mr. Trench?"

"Two boys—smart ones, too. They are here to rescue the girl Stella Earle from Kent's clutches."

"About time, too, sir. It's a shame and a scandal the way Kent treats the child. And she plucky as they make 'em."

He broke off, and chuckled.

"So you've locked Jonas and Mark outside, sir? A pretty row there'll be when they find out."

"So long as they can't get in, that doesn't matter. What I want to know is, how many men are there in the place besides you?"

"Only two, sir. Bleak as runs the dynamo, and the Chink who does the cooking. Chin Su they call him."

"Will they give trouble?"

"Not with the odds against 'em, as they are," was the prompt reply.

"And how many in the airship with Kent?"

"Eight—and a tough lot they are."

"Do you know where he has gone?"

"Just scouting, I reckon. He's always got the idea that someone will be after him. Guilty conscience, I expect."

"He hasn't heard of the other airship?"

"Not that I know of. But if he had, he wouldn't say. He's a close one, is Kent."

Mr. Trench paused a moment, thinking. Then he spoke again.

"We must secure Bleak and the Chinaman first," he said. "Then we must get hold of the little girl. Where is she, Gregor?"

"In the glass room, I'm afeared, sir. Kent, he puts her in there just to get the better of it. But do what he will, she won't be civil to him."

Cyril hurried forward.

"What is this glass room?" he demanded. "I heard one of the men outside speak of it. It must be something perfectly beastly."

Gregor looked at him.

"You can take your oath on that," he answered grimly.

TO BE CONTINUED

NOTES AND QUERIES

What is the Storthing? The Storthing is the Norwegian Parliament.

What is Pan-Slavism? Pan-Slavism was a term used before the war for a movement which aimed at uniting into one great confederation all the Slav peoples—Russians, Poles, Bulgarians, Serbians, and so on, probably with Russia dominating.

What is a Lakh? Lakh is a Hindustani word meaning ten thousand.

What is a Mugwump? Mugwump is a term of contempt in America for one who belongs to neither of the two great parties, but votes for whatever candidate suits his fancy. It is an Indian word meaning chief or great man, hence it is used in irony for a self-important person.

Five-Minute Story

PUNCH AND JUDY

PUNCH and Judy were two rabbits that were sent as a present to a large family of boys and girls.

They were grey and white rabbits with long, silky ears, and fur of exquisite cleanliness.

They came to a town house with a very small garden, and where to put the unexpected guests was a difficult problem.

"The darlings!" cried the children. "Why can't they stay indoors? They are as clean as Dick!"

Dick was the family cat, who showed his disgust at the arrival of the rabbits by leaving the house and not returning for a week; but this made no difference to the happiness of Punch and Judy.

That evening they gambolled on the dining-room carpet and nosed the patterned roses on it with delight, as if they had found some new and delicious pasture.

Even the grown-ups were forced to acknowledge their manners were perfect, and after a short walk in the garden on leash, while they nibbled a few refreshing blades of grass, the rabbits were carried up to the nursery, and put to bed in the dolls' cradle.

The next morning rabbit-hutches were pronounced by the children to be horrid things, and Punch and Judy ran about the house and garden like two happy, domesticated cats.

When Dick, tired of sleeping on the roof, returned to his own fireside, he was prepared to be disagreeable; but the rabbits greeted him so amiably, and admired him so openly, that he tolerated them at first, and afterwards played the part of indulgent uncle towards them.

He washed them occasionally, and every afternoon the three slept together in friendliness on a cushioned chair.

On Sunday, when the family returned from church, they usually found the two rabbits and the cat sitting on the broad window seat watching the people passing by with benevolent curiosity.

The children made their pets pink flannelette nightgowns, and to see the two gambolling in them was a sight never to be forgotten.

But, alas! Punch and Judy entirely destroyed the garden, the pride of their master's heart, and there came a dreadful day when the children returned from school to find them gone—given away to a little boy who kept rabbits in their proper place! Sadly they went to visit their darlings.

There, in a brand new hutch, were Punch and Judy, munching lettuce-leaves amiably.

They looked happy enough, but never would the children believe that they could prefer handsome hutches and juicy leaves to flannelette nightgowns, cats, dolls' cradles, and—best of all—liberty!

Merry, Merry all the Way and Happy as the Livelong Day

DR MERRYMAN

"WEARY," said the Tired One, when the two were resting as usual, "this is my birthday, and I draw a deep breath of relief, for I am out of danger."

"What are you talking about?" asked Weary.

"I am forty years old, and for some time I have known that between the ages of twenty-five and forty men do their greatest work. It worried me, but now I feel safe."

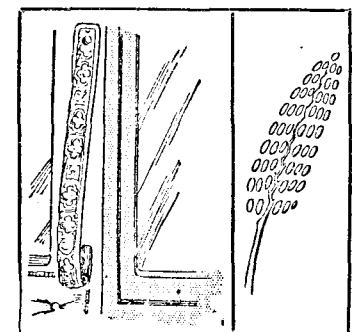
Is Your Name Norris?

THE name Norris is the same as Norreys, and means Northern. Probably it was given to some person who came in early days from Scandinavia. Its opposite is Surrey, which means Southern.

Tongue Twister

FRANCIS FRIBBLE figured on a Frenchman's filly:
Did Francis Fribble figure on a Frenchman's filly?
If Francis Fribble figured on a Frenchman's filly,
Where's the Frenchman's filly Francis Fribble figured on?

What Are These Things?



We are all familiar with these parts of things. Do you know what they are?

Answers next week

The Preacher and His Horse

THE steed bit his master;
How came this to pass?
He heard the good pastor
Cry "All flesh is grass."

A Surprise for Jacko

JACKO was back again at school, and, sad to say, he was not taking kindly to work.

Only that morning the Master had called his name three times before he answered.

"What are you doing, Jacko?" he demanded.

"Nothing," replied Jacko with an injured air.

"Then get on with your sums—you don't come here to stare out of the window."

Now, what Jacko was staring at was a great snow-man which the boys had made. It was as large as life, and as firm as a rock. They were tremendously proud of it, and as they filed out when lessons were over, Chimpny said:

"He only wants a pipe and a hat on his head, and anyone would take him for a real live man."

Jacko looked up quickly, opened his mouth, and shut it again without saying anything.

When they ran out into the garden, later on, Chimpny shouted so that they could all hear:

"I've got a pipe and an old top hat, Jacko—why, where is he?"

Nobody seemed to know.

"Come on!" cried the boys. "Doesn't he look real? Stuff the pipe into his mouth, Chimpny."

Chimpny obeyed with a good hard push.

There was a piercing yell, and the snow-man moved.

"He's alive!" shrieked the boys, taking to their heels.

Chimpny looked back. "It's Jacko!" he exclaimed, and they all burst out laughing.

Do You Live at Worcester?

THE Saxons called Worcester Wignoracester, which name was bestowed upon it by the Romans. It was most likely connected with a tribe called Hwicca or Hiyoscer, who occupied the district for a long time.

The Author and the Editor

A BUDDING author, somewhat new, His article had signed X Q. The editor the essay read, And begged he might be X Q Z.

WHY does the cannon ball? (canon bawl). Because the Vickers-Maxim (vicar smacks him).

Enough

IF your first line ends with cow,
Rhyme o w with plough;
Should your second nicely go,
Seek o long, as found in though;
Thirdly, would you try this too,
Double o is found in through;
Fourth, a variance we are taught,
Like a u is heard in thought.
Speak you, fifthly, of a sorrow,
Give the o obscure in borough;
In the sixth place you may pick up
Sound of u p in a hicough;
Turn your seventh couplet off,
Assuming o f as in cough;
Eighthly, sing you of a rock,
Echo c k with a lough;
Ninth and last, a final puff,
Sound u f, and cry—enough!

All the Figures Equal One

TAKE the numbers 1 2 3 4 5 6 7 8 9 0, and, using them all, make up two fractions that, added together, are equal to one.

Solution next week

The Eccentric Grocer

AN eccentric old grocer of Bray Said that butter was made out of hay.
And he tried to sell lard At three-halfpence a yard— Till his relatives put him away.

ANSWERS TO LAST WEEK'S PUZZLES

What Is It? The letter E.

A Truth Simply Stated
Many times love follows hatred.

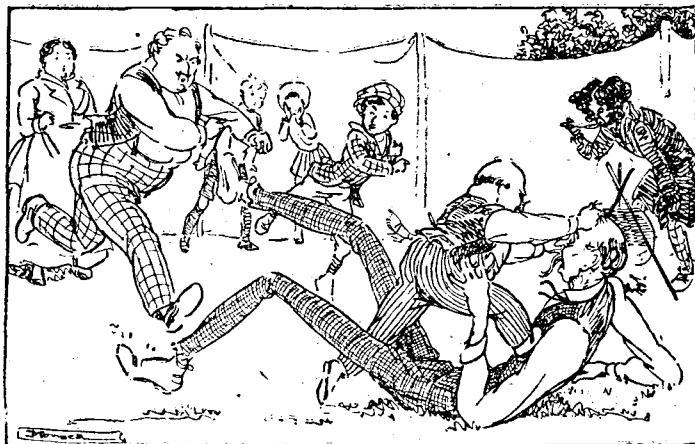
Hoity Toity and Molly Coddle

Hoity and Molly have run away from a grumpy aunt to find their parents. They join a circus, and the Giant asks Molly for help against the Dwarf.

CHAPTER 16

THEY moved back against the screen, Ping-Pong following. "We want to kill him!" said Eustace, leaning down to her. Molly was shocked. "Oh, you couldn't do such a wicked thing!" she exclaimed.

"I know we couldn't," Eustace agreed miserably. "The only time we tried he knocked us about so we daren't try



There was Eustace with the Dwarf on his chest, and Ping-Pong was scooping the last of the broth into his big mouth

since. But we're going to. The only way is with gunpowder."

"Oh, no!" Molly was horrified.

"Well, what would you do it with, then?" asked Eustace.

"Never with anything!" said Molly firmly.

"But gunpowder would do it," Eustace was sure.

"We berry hungry," said Ping-Pong.

"Tomorrow evening," Eustace went on, "we'll be just outside London, where we're going to have the show. There's shops in London where they sell gunpowder. They won't let us go out, but you can go and buy it."

"Oh, I can't do that!" gasped Molly.

"Would you!" roared the Dwarf, suddenly, coming towards them. "Thought I couldn't hear, eh?" He tiptoed to glare into Molly's eyes. "You'd help them to kill me, would you?"

"No," faltered Molly. "I said I could not."

"You said, 'I can do that.' I heard you."

Molly denied it, but Mr. Rivers would not believe her; and while they were talking excitedly she noticed that Eustace had slipped quietly to the pot, and was busy with the spoon.

"I heard what you said"—Mr. Rivers was obstinate—"and I'll pay you out for it! I've got a knife!" He felt its edge with his thumb. "I'll sharpen it tonight, and tomorrow, when you're asleep, I'll come creeping—creeping."

Suddenly he caught sight of Eustace, and rushed at him with such a yell that Molly fled, calling for help. In a minute Uncle George and the others were round the screen; and there was Eustace on his back, with the Dwarf on his chest grabbing his hair and banging his head on the ground, and Ping-Pong eagerly scooping the last of the broth into his big mouth.

Uncle George rescued Eustace by picking Mr. Rivers up and tucking him under his arm. He blamed all three for not being better friends, and as they went away Molly saw the Dwarf shake his finger, and say with his lips, without a sound:

"Tomorrow night!"

More of Hoity Toity next week



"He's alive!" shrieked the boys, taking to their heels

Who Was He?

The Philosopher

A WELL-TO-DO Cornish wood-carver had five children, of whom the eldest was a very remarkable boy. At five it is said that he would turn over the pages of a book he had never seen before so rapidly that people would think he was merely counting the leaves. Yet at the end he could give a very good account of the contents.

He went to school, and then at sixteen, just after his father died, he was apprenticed to a surgeon at Penzance. Being fond of chemistry, he fitted up a small laboratory in the attic of the house where he lived. This belonged to a friend of his mother's, who always spoke of the boy as "the philosopher."

One day a gentleman, being struck with his face, made inquiries, and found that he was interested in chemistry.

"In that case," said he, "I must have some conversation with him." And, being pleased with the boy, he offered him the use of his library, and introduced him to a lecturer who gave him the run of his laboratory.

It was the turning-point of his life. The man who had discovered him was a former President of the Royal Society, and later he suggested the youth for the post of laboratory superintendent in a Bristol institution.

The young chemist was then twenty, and published the results of his experiments in gases.

His fame now spread rapidly. He became Director of the Royal Institution's laboratory, and honours were showered upon him. At 32 he was made an LL.D., at 33 a knight, and six years later a baronet. Kings and emperors patronised him, and he was elected President of the Royal Society, the greatest honour a scientist can receive.

He travelled on the Continent, and when he went about tapping the rocks with a hammer in his study of geology the peasants thought him mad. Believing later that he did this as a penance, they changed their minds, and called him a saint.

His greatest achievement was a wonderful invention that has saved the lives of thousands of miners all over the world. When urged to patent this, and thus make £10,000 a year, he said, "No; my sole object is to serve the cause of humanity."

His health finally broke down, and though he travelled abroad he got worse, and died at Geneva on May 29, 1829, receiving a public funeral in the cemetery there. A tablet to his memory has been placed in Westminster Abbey. Here is his portrait. Who was he?



Last Week's Name—James Brindley

The Children's Newspaper grows out of my magazine, the monthly the whole world loves. My Magazine grew out of the Children's Encyclopedia, the greatest book for children in the world. The Magazine appears on the 15th of each month, and the Editor's address is: Arthur Mee, Fleetway House, Farringdon St., London, E.C. 4.

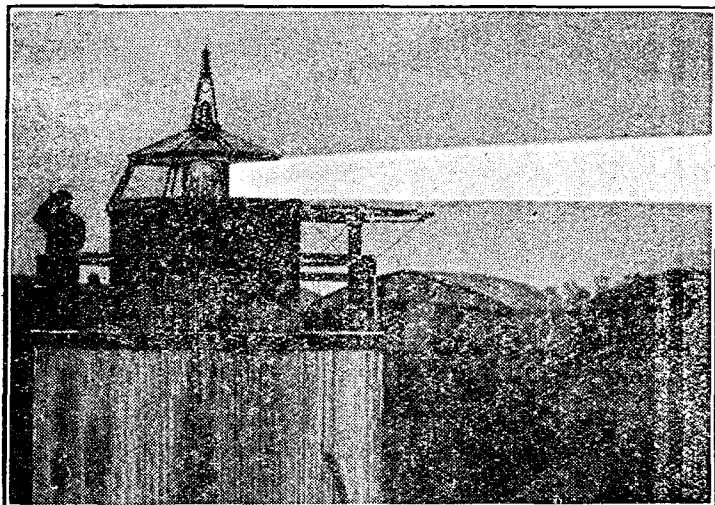
CHILDREN'S NEWSPAPER

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THE LIGHTHOUSE OF LONDON · EUROPE'S GREAT FLOODS · SCHOOLBOY PEER



The flying man's lighthouse at Hounslow which will guide aeroplanes at night



The first lady to enter for the Bar—Mrs. Thomson, who is studying law at Lincoln's Inn



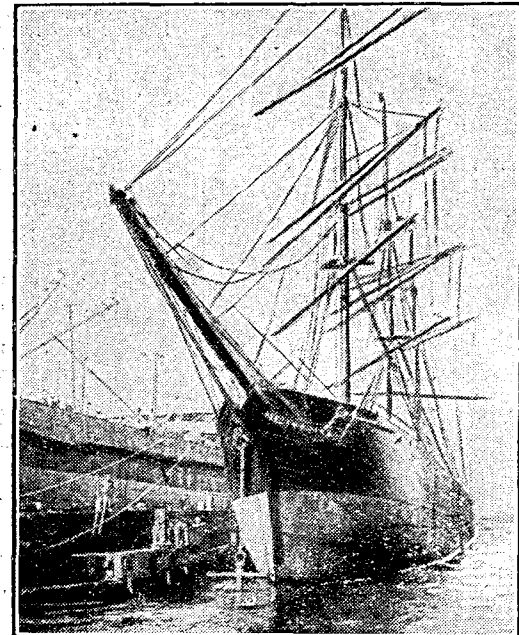
What to do with public houses—An old drink shop at Bow turned into a welfare centre for babies, and now known as the Mothers' Arms



The wonderful diving suit invented by a negro, which enables a man to go down 360 feet. See page three



A schoolboy who has become a peer—Young Baron Amherst of Hackney, who has inherited the title on his grandmother's death



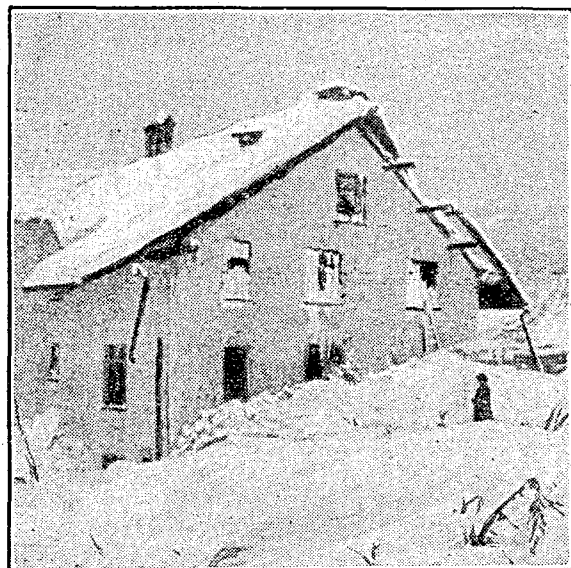
Wrecked and abandoned in Magellan Straits 20 years ago, this ship has now been refloated



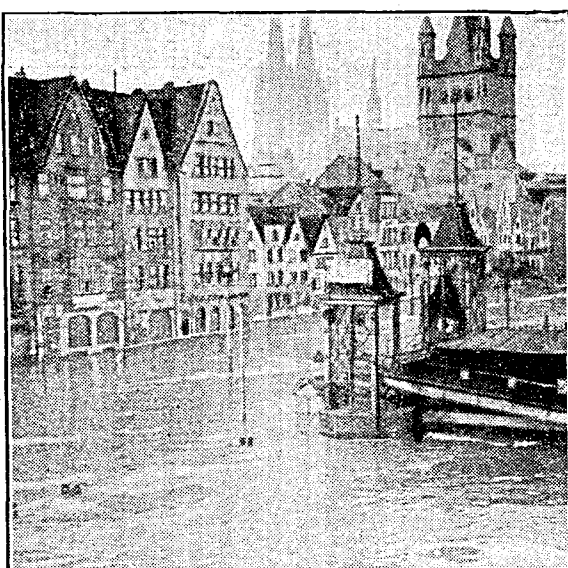
Queer turtle which has arrived at the London Zoo—Fishes nibble at its whiskers and are gobbled up



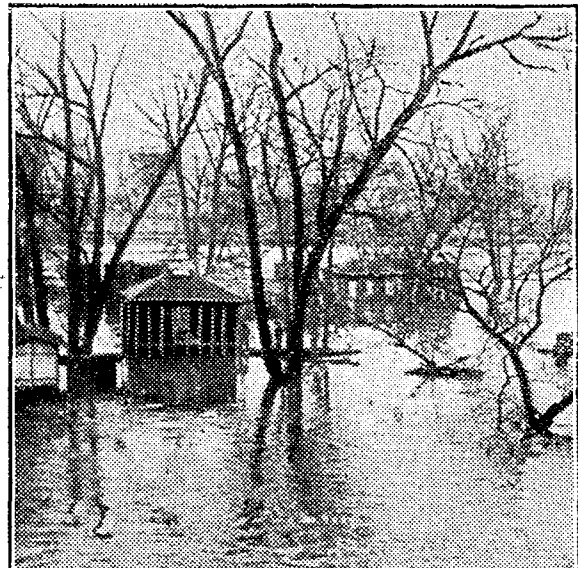
Gulls fighting for food during the cold weather, when they came inland in thousands



A house wrecked by the great avalanche at Davos, in Switzerland



The flooded streets of Cologne, where the floors of houses and the cathedral were submerged



The famous bridge of Neuilly in Paris, completely under water

THREE COUNTRIES INVADDED BY GENERAL WINTER AND HIS FORCES—THE PERIL OF FLOODS AND SNOW IN FRANCE, GERMANY, AND SWITZERLAND

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